



Turun yliopisto
University of Turku

GROUP IDENTIFICATION IN THE CONTEXT OF GLOBAL VIRTUAL TEAMS

Master's Thesis
in International Business
Liiketaloustiede, kansainvälisen
liiketoiminnan pro gradu -tutkielma

Author:
Milla Anttonen

Supervisors:
Ph.D. Esa Stenberg
M.Sc. Anna Karhu

21.01.2018
Turku



Turun kauppakorkeakoulu • Turku School of Economics

Turun yliopiston laatuvarmistuksen mukaisesti tämän julkaisun alkuperäisyys on tarkastettu Turnitin OriginalityCheck -järjestelmällä.

The originality of this thesis has been checked in accordance with the University of Turku quality assurance system using the Turnitin OriginalityCheck service.

Table of contents

1	INTRODUCTION	7
1.1	Background to the study.....	7
1.2	Research gap and focus of the study	8
1.3	Purpose of the study and research questions	10
1.4	Structure of the study	11
1.5	Key concepts and abbreviations.....	12
2	GLOBAL VIRTUAL TEAMS	14
2.1	Definitions for global virtual teams	15
2.1.1	Geographical and temporal dispersion.....	17
2.1.2	Cultural and linguistic diversity.....	18
2.1.3	Use of information and communication technology.....	19
2.2	Distinguishing global virtual teams from conventional teams.....	20
2.3	Advantages of global virtual teams	21
2.4	Challenges of global virtual teams	23
3	IDENTIFICATION	28
3.1	Definitions of Identification	29
3.2	Related Constructs and Conceptual Distinctiveness	30
3.3	Social Identity Theory and Self-Categorization Theory	32
3.4	Components of Identification.....	33
3.5	Determinants of identification.....	35
3.6	Multi-foci Identification.....	39
3.7	Group Identification	39
3.8	Identification in global virtual teams	41
4	METHODOLOGY	46
4.1	Research approach.....	46
4.2	Case selection.....	48
4.3	Data collection.....	50
4.4	Data analysis	52
4.5	Trustworthiness of the research.....	55
5	GROUP IDENTIFICATION IN GLOBAL VIRTUAL TEAMS	58
5.1	Group identification	58
5.1.1	Membership in a specific group.....	59
5.1.2	Emotional and psychological investment	65

5.1.3	Value connotations in the team.....	69
5.1.4	Team dynamics	74
5.2	GVT dimensions reflecting on group identification	79
5.2.1	Geographical and temporal dispersion	79
5.2.2	Virtual interaction	83
5.2.3	Cultural and linguistic diversity.....	87
6	CONCLUSIONS	93
6.1	Theoretical contributions	93
6.2	Managerial contributions	96
6.3	Limitations and suggestions for future research	98
7	SUMMARY.....	100
	REFERENCES.....	102
	APPENDIX I OPERATIONALISATION TABLE.....	109
	APPENDIX II INTERVIEW QUESTIONS	110

List of figures

Figure 1	Focus of the study.....	9
Figure 2	Structure of the study	12
Figure 3	The components of identification as presented by Ashforth et al. (2008, 330).	34
Figure 4	The analytical framework with pre-determined codes	54
Figure 5	Elements affecting feelings of belongingness to the team	64
Figure 6	An example of components of identification in the case teams	79

List of tables

Table 1	Key concepts and abbreviations used in this thesis.....	13
Table 2	Advantages and challenges of global virtual teams	27

Table 3	A brief summary of the main determinants of identification	36
Table 4	The case selection criteria	49
Table 5	Summary of the conducted interviews	51

1 INTRODUCTION

The aim of this thesis is to explore and discuss group identification in the context of multinational organisations where individuals are organised in globally dispersed and culturally diverse teams and communicate predominantly through virtual methods. The purpose is to study how group identification is constructed and sustained in global virtual teams and how do geographical and temporal dispersion, virtual interaction, and cultural diversity reflect on the process.

1.1 Background to the study

In the modern business world characterised by globalisation, growing customer demands, and rapid advances in information and communication technologies (ICT), organisations are increasingly demanded to coordinate activities that span geographical, temporal, cultural, and organisational boundaries. Consequently, conventional teams are being supplemented or replaced with virtual organisation structures that with the support of ICT enable new methods of collaboration among geographically distributed employees. (Au & Marks, 2012; Montoya-Weiss, Massey, & Song, 2001; Mukherjee, Hanlon, Kedia, & Srivastava, 2012.) Through ICT, members of virtual teams interact and work together in a wide variety of areas ranging from project teams to high value-added R&D or to more routine functions such as customer service (Au & Marks, 2012; Mukherjee et al., 2012; Weimann, Hinz, Scott, & Pollock, 2010).

Järvenpää and Leidner (1999, 792) define a global virtual team as “a temporary, culturally diverse, geographically dispersed, and electronically communicating work group” whereas Au et al. (2012) point out that virtual teams can adopt various forms ranging from individual employees being completely distributed to groups of employees being partially co-located and partially distributed. What is more, the virtual nature of a team does not always suggest temporary membership, but virtual teams can also be stable over years (Gibson & Gibbs, 2006). Although there are many benefits to a virtual team, such as potential decreases in travel time and costs, increased responsiveness and flexibility, maximization of expertise without having to physically relocate individuals, and creativity stimulated by diversity, the virtual work environment is also fraught with many distinctive complexities (Mukherjee et al., 2012; Weimann et al., 2010). Teams operating in a virtual context may be prone to issues such as low individual commitment, role ambiguity, dissatisfaction among team members, absenteeism, and social loafing (Järvenpää & Leidner, 1999; Weimann et al., 2010). Challenges may also include the escalation of misunderstandings and conflict among team members due to geographical dispersion and the lack of face-to-face interaction (Au & Marks, 2012).

Moreover, the virtual context can hamper organisation's ability to directly supervise or externally control employees (Mukherjee et al., 2012). External controls should therefore be attempted to be substituted in virtual organisations with internal controls such as trust, employee motivation, and the convergence of individual and organisational goals (Wiesenfeld, Raghuram, & Garud, 1999)

One way of changing the emphasis from external controls to internal ones can be to focus on employee's identification. Identification, according to current research, can be an essential binding factor in the virtual context and used as an informal control mechanism to facilitate coordination and reduce the need of relying on costly and bureaucratic structures of direct supervision or monitoring (Mukherjee et al., 2012). According to several definitions of identification, it denotes the extent to which members of a collective define themselves in connection to that collective. Identification thus represents the social and psychological ties between an employee and their organisation or their work group – a tie that exists regardless of the distance in between them. (Mael & Ashforth, 1992; Riordan & Weatherly, 1999; Wiesenfeld et al., 1999.) Through identification individuals define themselves as members of social collectives and assume same attributes and characteristics in their self-concept as those that define the group (Riordan & Weatherly, 1999; van Knippenberg & van Schie, 2000). It has been associated with a wide range of organisationally valued results such as job satisfaction, employee compliance, affective commitment, employee turnover, loyalty, and the extent to which employees feel motivated to coordinate their efforts to fulfil collective needs and goals. Furthermore, studies have shown that a strong shared identity within a team can reduce conflict and strengthen commitment, trust, group cohesion, and cooperative behaviour which in turn enhance organisational performance. (Au & Marks, 2012; Mukherjee et al., 2012.)

The impacts of identification can seem promising in relation to the challenges brought about by global virtual teams. However, regardless of the potential that identification offers, the ways in which it is constructed and sustained in the global and virtual context are yet to be thoroughly explored by scholars and as such deserve further consideration by the academic society.

1.2 Research gap and focus of the study

Both group identification and global virtual teams are topics of research that have attracted a considerable amount of interest by scholars which can be judged by the quantity of literature exploring them. Yet, regardless of the magnitude of literature providing support for the usefulness of identification in virtual work environments, it still remains rather unclear how identification can occur in the absence of traditional

means of member identification as is pointed out by Wiesenfeld, Raghuram, and Garud (1999). Also Fiol and O'Connor (2005) argue that despite the recognized significance of member identification in global virtual teams, very little is known about its development and maintenance over time, nor about whether or not there is something special about identification with virtual teams. Although some scholars advocate that it is difficult for members of geographically dispersed teams to identify with their team (O'Leary & Mortensen, 2010; Sivunen, 2007) or that a virtual team may even reflect negatively on member identification (e.g. Bartel, Wrzesniewski, & Wiesenfeld, 2012), there is yet very little evidence to substantiate such a claim. In fact, some scholars argue that the matter is far from resolved, and jumping into conclusions based on current literature is still rather premature (Hakonen & Lipponen, 2008). Au and Marks (2012) state that current literature is lacking in the number of studies related to identity in virtual teams and Gertsen and Zølner (2014) maintain that understanding the process by which identification develops in different contexts remains still limited.

According to some scholars, one factor influencing on employee attitudes related to identification is communication (Bartels, Peters, de Jong, Pruyn, & van der Molen, 2010; Scott, 2007; Sivunen, 2007; Wiesenfeld et al., 1999). However, as Järvenpää et al. (1999) remark, the global nature of virtual teams calls for attention on the possible influence of cultural variety in communication behaviours in global virtual teams. While extensive research material is available on computer-mediated communication and on cross-cultural communication, literature is scarce in studies exploring both simultaneously. Moreover, scholars have also called for more research on studies in real-life virtual teams instead of student teams that are much used in the extant research literature (Gilson, Maynard, Jones Young, Vartiainen, & Hakonen, 2015; Hakonen & Lipponen, 2009). Figure 1 below demonstrates the focus of this study as drawn from the research gap in the current literature.

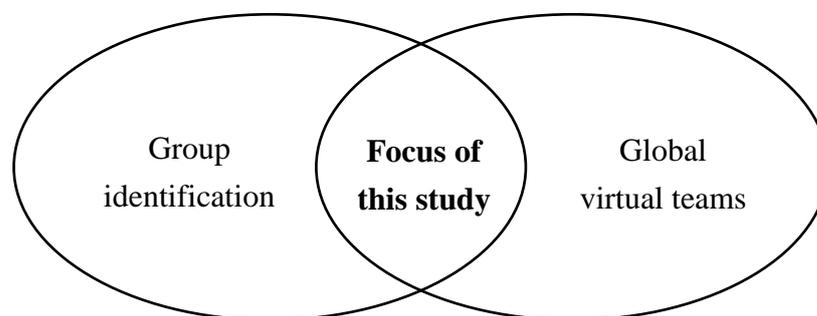


Figure 1 Focus of the study

Due to the aforementioned gaps in literature in regards to identification with virtual teams, this thesis will provide valuable insight on how identification may occur in global virtual teams and how do the different aspects of global virtual teams reflect on

the development of identification. The purpose of the study as well as the research questions are further discussed in the following section.

1.3 Purpose of the study and research questions

The purpose of this thesis is to study group identification in global virtual teams that are characterized by geographical dispersion, cultural diversity and reliance on information and communication technology. The research problem guiding this thesis is *how is group identification constructed and sustained in global virtual teams?* Four sub-questions have been formed to provide further insight into the topic under investigation and these are:

- How is group identification experienced in a global virtual team?
- How does geographical dispersion reflect on group identification?
- How does virtual interaction reflect on group identification?
- How does cultural diversity reflect on group identification?

By exploring group identification in global virtual teams, one can learn to understand how members of a geographically distributed, virtually interacting, and culturally diverse work groups can experience feelings of togetherness and belongingness to a common team despite the global dispersion of their teams. Moreover, this research will shed light on the ways and terms with which team members can feel part of their team, how they perceive their team membership, and what can identification in practice mean in global virtual teams.

This study concentrates on the experiences of individual members of global virtual teams as opposed to the managerial level. By understanding how identification is constructed from the point of view of the team members, it can be easier for the team leaders to facilitate group identification in their teams by concentrating on issues that team members perceive important. This is particularly important because group identification occurs through the perception of oneness when the individual defines him or herself in terms of their group membership. As such group identification is strongly related both to the individuals that form the group as well as to the group characteristics that can be managed by team leaders. These include but are not limited to topics such as values, goals, and the way of functioning of the team, the communication and co-operation in the team, organisational support, perceived fairness of procedures, and the kind of employee behaviour encouraged in the team (Ashforth, Harrison, & Corley, 2008; Bartels et al. 2010; Edwards & Peccei, 2010; Jones & Volpe, 2011; Mukherjee et al., 2012; Sivunen, 2007).

For this research, two global virtual teams from one large-scale multinational company were chosen as cases on which the empirical part of this study is based on. Both teams consist of locations in two different countries that comprise a culturally diverse workforce which interacts chiefly through information and communication technology. The theoretical framework is constructed on current literature on the topics of identification and global virtual teams and is mainly drawn from sources dated after 1990 after which the academic works on both topics has started to mushroom. The selected theories stem from a number of disciplines ranging from management, organisational behaviour, and international business, to psychology, communication sciences, and information systems sciences. However, emphasis is laid on literature from the former three. The variety of disciplines behind the theoretical framework helps to ensure a comprehensive understanding on the different dimensions of a topic which in itself is a complex phenomenon to grasp. Together with the current literature and the theories behind the topic under investigation the empirical part of this study will enjoy the theoretical support required for providing new insights into group identification in global virtual teams. These insights will aim at contributing both to the theoretical and managerial understanding of identification in global virtual teams and filling in the research gap currently present in the extant literature.

1.4 Structure of the study

The following section provides an overview on the structure of this study.

Chapter 1 provides an introduction to the topic under investigation, i.e. group identification in global virtual teams, and presents the purpose of the study in addition to the key concepts and abbreviations used in this thesis. Chapters 2 and 3 form the theoretical framework for this research, covering and eventually combining the topics of global virtual teams and identification. Chapter 2 goes through the different definitions of global virtual teams and what distinguishes them from conventional teams. Also the advantages and challenges of global virtual teams are visited. Chapter 3 clarifies the concept of identification and dissociates it from other related concepts. Moreover, it provides the theoretical background for identification by reviewing its two basic theories as well as its components, determinants and foci. Finally, identification is discussed more closely in connection to smaller units of work groups, i.e. teams, and the research stream of identification is connected to global virtual teams. The research approach, case selection and data collection and analysis are described in depth in chapter 4 in order to provide a solid base for the trustworthiness of the research further detailed at the end of the chapter. Finally, key findings of the research are presented in chapter 5 which is followed by discussion on theoretical and managerial contributions

and reflection on the potential limitations of this study as well as suggestions for future research. A conclusive summary is given in chapter 7.

A synthesis of the structure of the study is presented below in Figure 2.

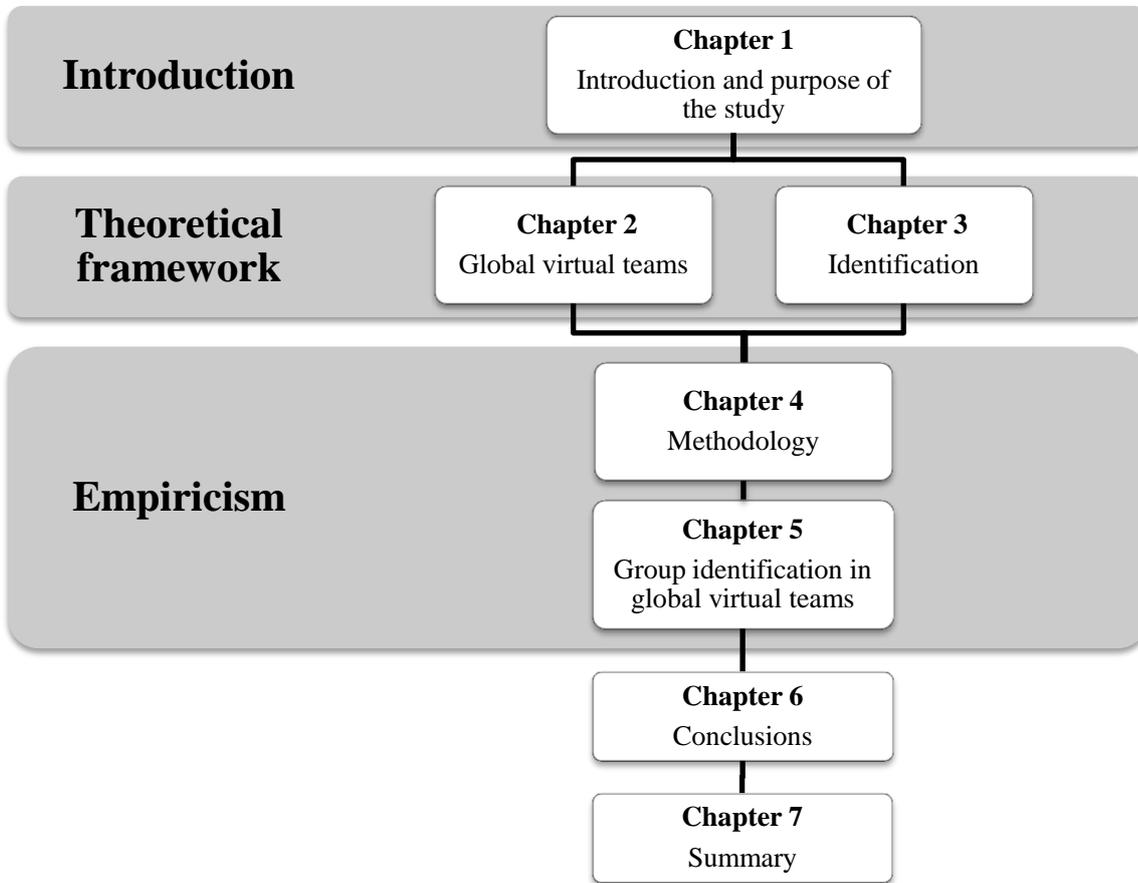


Figure 2 Structure of the study

1.5 Key concepts and abbreviations

In order to provide clarity for the readers, the key concepts and their abbreviations used in this study are listed below in Table 1 together with short explanations for each. However, more comprehensive discussion on each concept is provided in the theoretical framework presented in chapters 2 and 3.

Table 1 Key concepts and abbreviations used in this thesis

Key concept	Abbreviation	Definition
Global virtual team	GVT or VT	A group of individuals working together to achieve a shared outcome but who are to some degree geographically dispersed and culturally diverse, and who rely on information and communication technology for interacting.
Information and communication technology	ICT	Technology that provides the means for employees in a GVT to communicate, share information and interact with each other with a reduced need for paying attention to location or time.
Organisational identification	OID	The perception of oneness with or belongingness to an organisation where the individual defines him or herself at least partly in terms of their organisational membership and consequently behaves in a way that is supportive to the organisation.
Group identification		Identification to a collective that is smaller and more proximal than the whole organisation. In other words, it refers to experienced membership in a group, such as a work team, as well as a certain level of value and emotional significance assigned to that membership.
Social Identity Theory	SIT	A theory according to which one's self-concept is formed by one's personal identity and by a number of social identities derived from memberships in different social groups.
Self-Categorization Theory	SCT	A theory according to which individuals simplify their social environment by categorising people into groups based on perceived similarities and differences. This is followed by comparison between categorised groups. The salience of each category can vary according to the situation.
Social Identity Approach	SIA	The combination of Social Identity Theory and Self-Categorisation Theory.

2 GLOBAL VIRTUAL TEAMS

14 years ago, Bell and Kozlowski (2002, 15) argued that “there is little doubt that virtual teams will play a key role in the design of organisations”. It was then a recent phenomenon but in today’s workplace it has become the common way of working. According to a strategic HR management survey from 2012 (Saarinen, 2016) approximately 70% of multinational organisations worldwide use virtual teams. In their study from 2016, Han and Beyerlein (2016) refer to recent surveys according to which more than 60 percent of all professional employees work in virtual teams. Within two decades virtual teaming has become to supplement and replace conventional ways of structuring, processing and distributing work, essentially due to two reasons: globalization and rapid developments in the field of information and communication technology (ICT).

Changes in the global business markets, following from globalization and advances in ICT, are continually transforming the nature of competition, customer demands, labour, and the environment in which we work (Bell & Kozlowski, 2002; Mukherjee et al., 2012; Saarinen, 2016). As customer demands and both domestic and foreign competition increase drastically, companies are pressured towards a constant search for economic advantage. Also the requirements of labour are changing along with the continued shift from production to service-focused and knowledge-intensive work environments that is making work ever more global, dynamic, and complex. (Bell & Kozlowski, 2002; Montoya-Weiss et al., 2001; Saarinen, 2016.) Rapid improvements in technology-enabled communication systems have resulted in a diverse but closely integrated global workforce, providing organisations with new solutions against the challenges that result from business activities crossing boundaries of distance, time, cultures, and organisations (Montoya-Weiss et al., 2001; Mukherjee et al., 2012; Saarinen, 2016).

Consequently, in response to the changes brought about by globalization and the improvements in communication technology, new ways of organizing work have emerged in the form of virtual teams (Kirkman, Rosen, Gibson, Tesluk, & McPherson, 2002; Sivunen & Valo, 2006). These geographically and organisationally dispersed, culturally diverse and electronically collaborating work units have increased rapidly in number and become common in today’s global organisations (Chudoba, Wynn, Lu, & Watson-Manheim, 2005; Saarinen, 2016). As Bergiel, Bergiel, and Balsmeier (2008, 100) put it, “virtual teams offer the promise of flexibility, responsiveness, lower costs and the improved resource utilization necessary to meet the ever-changing task requirements of companies operating in highly turbulent and dynamic global business environments”. However, scholars have also found many unique challenges characteristic to the virtual work environment. In lifting some of the barriers in global

work, virtual work simultaneously poses several issues in regards to virtual team processes and communication between virtual workers (Mukherjee et al., 2012; Saarinen, 2016; Weimann et al., 2010).

In the below sections, several important but slightly different definitions and terms related to global virtual teams will be presented, followed by an overview of characteristics that provide a clear distinction between traditional and virtual teams – geographical and temporal dispersion, cultural and linguistic diversity, and the use of information and communication technology. Virtual teams will also be discussed in terms of their virtuality in order to provide a comprehensive view on the multitude of forms in which virtual teams exist and are explored in the academic research. Finally, both the benefits and challenges of global virtual teams will be discussed in terms of their unique characteristics that separate them from traditional teams.

2.1 Definitions for global virtual teams

Since the beginning of the millennium, there has been a proliferation of studies with variation in both the terms used to refer to global virtual teams as well as in definitions given to characterise them. A closer review reveals considerable overlaps in dimensions that compose virtual teams as well as variations in what is considered essential dimensions in characterizing virtual teams. Below section will first present some of the various definitions of virtual teams given in the current literature and then summarize them into one definition that will be used in this thesis.

In the extensive literature covering the topic, virtual teams have been referred to with a variety of terms, including for instance “distributed teams” (Weimann et al., 2010), “dispersed teams” (O’Leary & Mortensen, 2010), “virtual teams” (Au & Marks, 2012; Han & Beyerlein, 2016; Kirkman et al., 2002) or “global virtual teams” (Järvenpää & Leidner, 1999; Mukherjee et al., 2012; Saarinen, 2016). Some use “virtual”, “distributed” and “dispersed” as synonyms and some make clear distinctions between them (Saarinen, 2016). For the sake of clarity and in order to avoid repetition, only virtual team (VT) and global virtual team (GVT) will be used in this thesis. Following Järvenpää and Leidner (1999) the representation of virtual teams as global is used to emphasize the cultural diversity and geographical dispersion of the team.

In addition the terms used, also the definitions of virtual teams differ across extant literature. What is common to most of them, however, is the multidimensionality of virtual teams. Gibson and Gibbs (2006) provide a thorough review on the variety of dimensions allocated by scholars to virtual teams, including dimensions of geographic, temporal, organisational, functional, and national and/or cultural dispersion of team members, reliance on and communication through technology, as well as fluid or

temporary membership. Some scholars also emphasize the complete or partial lack of face-to-face communication as characteristic to VTs (cf. Mukherjee et al., 2012). Although the dimensions used in each VT definition vary, most of the definitions comprise two or three dimensions (Gibson & Gibbs, 2006; Han & Beyerlein, 2016). Some even use four dimensions, such as Järvenpää and Leidner (1999) who include interaction mode (electronic vs. face to face), temporality of membership, cultural diversity, and geographical dispersion in their definition of virtual teams. Nevertheless, the most common characterizations of GVTs involve geographic dispersion and electronic dependence in addition to national diversity. Although fluid structure (i.e. temporary membership) is also somewhat often mentioned in the literature, it is worth noting that not all virtual teams are always dynamic in terms of membership – some teams can be stable over several years. Moreover, electronic dependence does not always imply geographical dispersion between team members – sometimes even co-located team members might prefer computer-mediated communication in place of face-to-face discussions. (Gibson & Gibbs, 2006.) Also Au and Marks (2012) and Staples and Zhao (2006) point out that virtual teams can take on a variety of forms, ranging from entirely distributed teams to partially co-located and partially distributed teams, also known as hybrid teams (cf. Fiol & O'Connor, 2005). Geographical dispersion can thus be viewed on a continuum rather than as an either/or characteristic (Gibson & Gibbs, 2006).

All in all, I have collected the below definitions to give an overall characterization of global virtual teams that is the most relevant for this thesis.

- “A global VT is an organisational design, in which members often: physically are on different continents in different countries; interact primarily through the use of computer-mediated communication technologies (e.g. e-mail, videoconferencing, skypeing); and rarely or never see one another in person.” (Mukherjee et al., 2012, 529)
- “Global virtual teams (commonly abbreviated as GVTs) work across time and space as well as organisational and cultural boundaries. They are generally defined as groups of people who (1) work together using communications technology, (2) are distributed across space, (3) are responsible for a joint outcome, (4) work on a strategic or technically advanced task, and (5) are multifunctional and/or multicultural” (Saarinen, 2016, 23-24)
- “These teams are usually made up of members from different national backgrounds, meaning the members come from different national cultures, possibly speak different languages, and were raised in different countries that may have different value systems. Today’s electronic communication capabilities makes it easier and common for these team members to work together while being physically located in different cities or countries. These

geographically-distributed teams are commonly referred to as virtual teams.” (Staples & Zhao, 2006, 389)

- “A virtual team is usually defined as a group of people who work closely together even though they are geographically separated, sometimes residing even in different time zones around the world. Their primary interaction takes place through a combination of technologies such as email, telephone, shared databases, videoconferencing, and conference calls.” (Sivunen & Valo, 2006, 57)

From the above definitions it can be summarized that global virtual teams are defined as groups of individuals who are to some degree geographically and temporally dispersed, and to some extent culturally and linguistically diverse, and who rely on information and communication technology for interacting and working together in order to achieve a shared outcome. However, purely virtual or purely face-to-face teams rarely exist in today’s business environment. As such, all teams can be characterized based on their degree of virtuality, which in itself is a complex, multidimensional construct ranging from low to high on each dimension. The three distinctive dimensions of a global virtual team according to the above definition are therefore:

- (1) geographical and temporal dispersion
- (2) cultural and linguistic diversity
- (3) the use of information and communication technology

2.1.1 Geographical and temporal dispersion

Geographical dispersion refers to the most critical and important feature of virtual teams, i.e. their ability to cross boundaries of space and work from different geographical locations. As mentioned previously, it is not an either/or feature, but rather a continuum of the extent to which members of an organisation or a team are distributed across geographical locations. The inclination towards geographical dispersion of workforce is brought about by the opportunity to access and connect the most qualified workforce from around the world. Geographical dispersion impacts among other things on the form and frequency of communication (face to face vs. virtual, synchronous vs. asynchronous) and hence on team processes such as knowledge sharing and coordination of work activities. (Bell & Kozlowski, 2002; Chudoba et al., 2005; Gilson et al., 2015; Weber & Kim, 2015.)

Temporal dispersion refers to the degree of overlap in work hours between the members of an organisation or a team. It occurs when individuals are located across different time zones or have different working hours due to diverse employment

contracts, such as in the case of part-timers or teleworkers. The ability of GVTs to transcend boundaries of time is made possible by the utilization of information and communication technology. Yet, it is worth noting that although the geographical dispersion of VTs often alludes to temporal dispersion, this is not always the case, e.g. when the members of a geographically distributed team all work in the same time zone. Temporal dispersion impacts on the synchronicity and response times of communication as well as coordination of work. However, at the same time it enables GVTs to operate around the clock and take care of one's responsibilities at a time most convenient to them. (Bell & Kozlowski, 2002; Chudoba et al., 2005; Weber & Kim, 2015.)

2.1.2 Cultural and linguistic diversity

Cultural diversity refers to the extent to which members of a team represent different national and cultural backgrounds. It is comprised of both overt, observable characteristics i.e. surface-level characteristics, which include race, ethnic characteristics, and native language, as well as deep-level characteristics, namely cultural values, that are not visible to the eye but that impact on thinking and behaviour. (Staples & Zhao, 2006.)

One of the most referenced set of cultural values is Hofstede's cultural framework consisting of the values of individualism-collectivism (evaluation and prioritization of personal interests in relation to collective interests), masculinity-femininity (assertiveness and emphasis on work goals versus personal and family goals), power distance (acceptance of inequality), uncertainty avoidance (dislike for ambiguity), and time horizon (long-term versus short-term orientation) (Mukherjee et al., 2012; Staples & Zhao, 2006). Cultural values provide a lens through which one views and understands the surrounding environment and they characterise the way members of the same group think, feel and behave (Chudoba et al., 2005; Gibson & Gibbs, 2006). In fact, Chudoba, Wynn and Lu (2005) actually define culture as a set of values shared by a group of people that distinguishes it from other groups. When considering the definitions from both Chudoba, Wynn, and Lu and Staples and Zhao, it is noteworthy that culture, or cultural values, is only one aspect of cultural diversity. Also native language is part of cultural diversity as a surface-level characteristic. Chudoba, Wynn and Lu further argue that language may be especially relevant in GVTs because most communication is mediated through technology (Chudoba et al., 2005; Staples & Zhao, 2006).

All in all, differences in cultural values, traditions, and languages reflect on several aspects of GVT work, including among other things communication, conflict resolution, knowledge sharing, relationship building and trust development (Bell & Kozlowski,

2002; Han & Beyerlein, 2016). Moreover, although diversity and geographic dispersion are theoretically distinct concepts, the two dimensions are highly intertwined and often overlap as geographically dispersed team members usually also tend to be representatives of different nationalities and cultures (Fiol & O'Connor, 2005, 27).

2.1.3 Use of information and communication technology

The final distinctive feature, essential to the operation and communication of virtual teams, is their utilization of information and communication technology, or ICT (Chudoba et al., 2005; Weimann et al., 2010). ICT provides the critical means for employees to communicate, share information and interact with each other without the need for paying attention to location or time (Bell & Kozlowski, 2002). Such technologies include both synchronous tools, that enable real-time communication regardless of location, as well as asynchronous tools such as e-mail, text messages, voice-mail, web-based project management tools, social networking, virtual walls or a designated Web site. Examples of synchronous tools include, but are not limited to, conference calls, video conferencing, and online meetings or chats e.g. with Lync or Skype. (Bergiel et al., 2008; Saarinen, 2016; Weimann et al., 2010.)

Different media can be classified from lean media to rich media by the levels of information richness they provide, i.e. their ability to convey social cues such as body language, facial expression and tone of voice, and the capacity for communication partners to provide timely feedback. Consequently, technology-induced media richness ranges from no technology support to textual asynchronous media (lean media) and finally to face-to-face communication which arguably has the highest level of information richness. However, the need for richer media varies based on the team's tasks. For instance, less complex tasks often require only minimal collaboration and interdependence between team members and hence asynchronous tools will suffice for their completion, while more complex tasks require also more information sharing and collaboration in decision-making, thus necessitating the use of communication technologies that are richer in the information they provide. (Bell & Kozlowski, 2002; Fiol & O'Connor, 2005; Weimann et al., 2010.)

The use of ICT and a GVTs dependence on it, i.e. a team's degree of virtuality, can also be viewed on a continuum. Indeed, there are more and less virtual teams when it comes to the relative extent to which team members are required to communicate via ICT instead of face-to-face communication. A team that never meets face to face but only communicates via technology is considered more electronically dependent than a team whose members meet at least occasionally face-to-face. (Gibson & Gibbs, 2006; Hakonen & Lipponen, 2007.)

2.2 Distinguishing global virtual teams from conventional teams

The dimensions discussed above also provide a clear distinction between conventional and virtual teams as they suggest a clear departure from the traditional ways of organising work, i.e. employees working in a conventional office environment with their colleagues and supervisors in close proximity to one another (Bartel et al., 2012; Bell & Kozlowski, 2002).

Traditional teams essentially operate face-to-face whereas members of GVTs are geographically scattered and thus located across time zones and representing different national and organisational cultures (Mukherjee et al., 2012). In consequence, the central aspect differentiating virtual and conventional teams is their shattered nature stemming from the global dispersion and increased heterogeneity on multiple dimensions (Han & Beyerlein, 2016; Saarinen, 2016; Sivunen, 2007). Compared to traditional teams, GVTs involve several features that impact on team processes and cooperation and that in fact not only separate GVTs from traditional teams but also make them as unique and characteristic as they are. Sivunen (2007) mentions five dimensions – geographical, temporal, cultural, and organisational dispersion, and form of interaction (computer-mediated vs. face-to-face) – but as discussed previously, there are a variety of combinations of these.

Furthermore, traditional teams differ from GVTs in regards to the challenges they face due to their characteristic dimensions. For instance, relationship-building might be more difficult and take more time in a virtual work environment due to the lack of face-to-face interaction and non-verbal cues (i.e. geographical dispersion and use of ICT). This can impact the team's dynamics of trust and commitment which are on the one hand more important, but on the other hand, also more complex in VTs than in traditional teams. (Saarinen, 2016.) As work no longer occurs in a shared context, individuals offer a variety of inputs and points-of-view to the team. Moreover, they communicate and access information from different physical locations via mediating technologies such as video-conferencing and e-mail. (Bell & Kozlowski, 2002; Mukherjee et al., 2012.) What is notable in this is its impact on the synchronicity of interaction. Although generally both virtual and conventional teams share the common characteristics of communication, one feature following from the virtuality causes a clear distinction between the two types of teams – that is the increased reliance on asynchronous communication such as e-mail. In conventional teams synchronous, real-time interaction is simply easier and more frequent whereas GVTs are obliged to rely on asynchronous methods of communication (Bergiel et al., 2008).

All in all, although job descriptions, responsibilities and tasks in general might remain the same, virtual work substantially transforms the essential characteristics of

the work environment and the ways employees engage with their organisation and interact with others in their work (Bartel et al., 2012, 743).

2.3 Advantages of global virtual teams

Due to the complex nature of global virtual teams, research regarding the advantages and challenges of GVTs has produced a mixture of results. On one hand, virtual teams provide organisations with a number of opportunities when compared to traditional teams and on the other hand the virtual environment holds a variety of challenges that might affect on the operation of teams and organisations. Both the advantages and challenges of global virtual teams will be discussed below in relation to the three defining dimensions of GVTs.

Geographical and temporal dispersion offers organisations several functional and financial advantages, one of the most obvious ones being the ability to combine the best available expertise without the need for relocation or travel (Au & Marks, 2012; Kirkman et al., 2002). Consequently, companies are able to use talent wherever it exists, exploit local expertise and situate employees closer to customers and other stakeholders while accumulating substantial savings in travel costs and time. Reductions in travelling also contribute to environmental sustainability. (Bergiel et al., 2008; Saarinen, 2016.) Virtual teams also guarantee organisations the agility and flexibility required to respond to changing market demands with the necessary speed and accuracy (Bell & Kozlowski, 2002; Mukherjee et al., 2012). Furthermore, global virtual teams also benefit the employees as they provide members of GVTs with greater flexibility to perform their responsibilities at a time and location most convenient to them. Not only does this increase employee performance, satisfaction and productivity, it can also lead to more effective organisational attraction, recruitment, and employee retention. This is seen important especially within younger employees who tend to have more demanding expectations regarding the balance between work and private life. (Mukherjee et al., 2012; Saarinen, 2016.) Finally, in her study on interaction in dispersed teams, Sivunen (2007) found some of the respondents to experience that, in relation to traditional teams, geographical dispersion reduced conflicts, misunderstandings and disagreements between team members.

Cultural and linguistic diversity. Han and Beyerlein (2016, 352) state that “national cultural diversity in teamwork is often portrayed as a double-edged sword”. On one hand diversity helps to stimulate creativity, innovation and originality, discourage discrimination, increase employee satisfaction, and enhance team effectiveness due to greater variety of ideas, perspectives and experiences (Bergiel et al., 2008; Han & Beyerlein, 2016; Staples & Zhao, 2006). Some studies have shown

that certain team process losses related to personality conflicts, cliques, stereotyping, and power politics, which are found to frequently occur in traditional teams, are diminished in the virtual work environment (Han & Beyerlein, 2016). In her study, Sivunen (2007) found that the presence of a variety of cultures in a team was in many occasions experienced as positive and interesting, consequently motivating team members to get acquainted with each other. On the other hand, cultural diversity can also produce a number of challenges that organisations and managers need to take into account when considering virtual teams. These challenges will be discussed in the following sub-chapter. All in all however, cultural diversity and its impact on team processes such as communication seem to be dependent on individual experiences of cultural differences (Bergiel et al., 2008).

Use of information and communication technology. The advantages induced by the geographical dispersion of team members or in fact the existence of virtual teams in general could not be possible without the enabling features of information and communication technology. ICT provides VT members with the possibility to communicate, collaborate, and interact together across space and time and to take part in discussions and decision-making even from afar. (Bergiel et al., 2008; Montoya-Weiss et al., 2001; Sivunen, 2006.) While synchronous ICT enables real time discussions that can increase team spirit and feelings of togetherness, asynchronous communication technologies, such as e-mail, can ease interaction, improve team efficiency, and make collaboration more trustworthy due to the documentability of computer-mediated communication. Moreover, ICT provides employees with a degree of visual anonymity and social distance as the sender and receiver of a message do not have to be present at the same time. As such it might be easier to discuss sensitive issues when both parties have time to digest information and contemplate on how to formulate one's response. Visual anonymity can also encourage shy team members to express their opinions more freely. (Saarinen, 2016; Sivunen, 2006, 2007.) What is more, technology-mediated communication is seen as more effective than in face-to-face teams since communication is more task-focused (Sivunen, 2007). Finally, in relation the advantages of GVTs, several academics also discuss about the reductive capabilities of ICT which help reduce the negative effects of team diversity. For instance, written communication ensures that cultural differences are less noticeable due to the lack of non-verbal cues such as physical appearance and verbal cues such as accent. Also language accuracy improves and intercultural miscommunication decreases as VT members have more time to process and formulate their message (Han & Beyerlein, 2016; Saarinen, 2016; Staples & Zhao, 2006). Consequently, by dispelling cultural differences ICT can assist in increasing perceived similarity among VT members (Järvenpää & Leidner, 1999).

In conclusion, while virtual team work may not prove to be the solution for every organisation, global virtual teams can unquestionably provide certain advantages that make them a strategically significant instrument for organisations that operate in the global market (Sivunen, 2007).

2.4 Challenges of global virtual teams

While there are many advantages to global virtual teams, much of the relevant research also discusses challenges virtual teams might be subject to, especially if these challenges are not adequately taken into consideration and managed. For instance, Weimann, Hinz, Scott and Pollock (2010) list a number of disadvantages of GVTs, such as potential free-riding, difficult and less effective communication, and insufficient knowledge transfer that might result in decreases in team efficiency and performance. Gibson and Gibbs (2006) studied the impact of national diversity, geographic dispersion, and electronic dependence in VTs and found them to have negative effects on innovation. Chudoba, Wyn, Lu and Watson-Manheim (2005) discuss the lack of cohesion that technology can cause in the virtual work environment. Moreover, while communication is seen as the key to the success of distributed teams, it is also considered one of the potential weaknesses in GVTs. This is because in case of a failure to establish and maintain common ground and a context of shared meaning among VT members, teamwork and communication will suffer serious breakdowns that can kindle issues in conflict management, trust and team cohesion. (Weimann et al., 2010.) Finally, Bell and Kozlowski (2002) point out the challenges GVTs pose to leadership, especially in terms of developing and designing team processes and in terms of monitoring and managing ongoing team performance. The challenges associated with GVTs will be discussed more thoroughly below in regards to the defining dimensions of global virtual teams presented previous chapters.

Geographical and temporal dispersion have been found to influence on several aspects of team processes in the virtual work environment. According to some scholars, geographically dispersed teams are often subject to a lack of interpersonal interactions and personal contact that help stimulate social bonding within team members. This can limit spontaneous communication, the extent of peer engagement and the creation of common ground, and thus impact on team cohesion and trust building. (Weber & Kim, 2015.) Gibson and Gibbs (2006) add to the discussion on the importance of shared contextual knowledge and cite a study according to which majority of conceptual misunderstandings result from the lack of awareness of or failure to appropriate so-called “situated knowledge”. Situated knowledge is defined as common knowledge that

local team members take for granted but that they cannot readily describe, nor articulate its relevance to team members located elsewhere (Gibson & Gibbs, 2006).

Other scholars discuss the consequences that the lack of face-to-face interactions in addition to the team's dispersion on multiple time zones can have on e.g. coordination of meetings, delays in communication and decision-making, as well as levels of frustration following from the disruptions in interaction. Time zone differences have an impact especially on team members that are located far from the rest of the team and delays in communication are particularly apparent when the team relies on asynchronous communication media. (Bergiel et al., 2008; Sivunen, 2007.) Finally, it is also argued that conflict is more likely in virtual teams largely due to the geographic dispersion of team members and that this affects negatively on team satisfaction (Gilson et al., 2015). Physical distance between team members can also cause lack of familiarity within global virtual teams because the virtual environment limits the extent of informal personal communication and focuses discussion mainly on work-related topics. Decreased proximity of co-workers, supervisors, and other members of the organisation is further associated with e.g. loneliness, isolation, and a decreased sense of belongingness. It can also result in less attention and effort exerted by geographically dispersed team members and hence in more freeloading. (Gibson & Gibbs, 2006; Mukherjee et al., 2012; Saarinen, 2016.)

Cultural and linguistic diversity. Individuals from various cultural backgrounds differ in respect to their working practices, communication styles, language skills, and group behaviours (Au & Marks, 2012; Han & Beyerlein, 2016; Järvenpää & Leidner, 1999). Several examples of the impact of cultural diversity can be found from the current literature. For instance, members from a collectivistic culture tend to have more favourable impressions of team processes than members with an individualistic cultural background. Depending on nationality, GVT members can also differ in their regards to the importance of including team members in discussion and decision-making, or in their preference for richer communication tools (e.g. phone- or video-conferencing) or weaker communication tools (e.g. e-mail or chat). (Gilson et al., 2015.) Differences can also be found in individuals' motivation to seek and disclose individuating information, ability to enter or leave new groups, attachment or commitment to, and identification with teams and other team members. Consequently, GVTs commonly experience hindrances in group-related behaviours such as knowledge-sharing, relationship-building, and intercultural learning (Gibson & Gibbs, 2006; Han & Beyerlein, 2016; Järvenpää & Leidner, 1999; Saarinen, 2016).

However, one of the most important challenges of cultural and linguistic diversity to GVTs is that related to communication styles and language skills. Individuals communicate through the filter of their culture, but cultures differ in their interaction styles, e.g. in terms of the formality, openness, and precision with which people

communicate and convey messages. Some cultures emphasise the importance of non-verbal, contextual cues in communication and interpretation of messages, avoiding negative or confrontational tones, whereas others rely on more direct and explicit language to convey messages with a precise and clear meaning regardless of possible negative or confrontational content. Some are more formal than informal or more task-oriented than people-oriented in their communication. (Gibson & Gibbs, 2006; Järvenpää & Leidner, 1999; Saarinen, 2016.) Finally, also language skills can impact in GVTs. Linguistic errors, such as spelling and grammatical mistakes or wrong choice of words, do not only cause misunderstanding or complete lack of understanding, but they can also stimulate negative perceptions about one's trustworthiness and agreeableness (Han & Beyerlein, 2016; Sivunen, 2007).

All in all, if not adequately taken into account and managed, the presence of cultural differences in a team can challenge GVTs in terms of decreased performance and satisfaction which can follow from issues such as communication and coordination difficulties, decrease in team cohesion, increase in misunderstandings, distrust and conflict, formation of negative stereotypes, and failure to make decisions, reach agreement and take action (Au & Marks, 2012; Gibson & Gibbs, 2006; Han & Beyerlein, 2016; Staples & Zhao, 2006).

Use of information and communication technology. The challenges associated with the use of ICT in global virtual teams are principally related to communication and coordination. The "leaner" nature of computer-mediated communication hinders the use of social and non-verbal communication cues that individuals use to convey interpersonal affections such as trust, warmth, and attentiveness which in turn contribute to message clarity and communication richness. When these cues are missing, it is more difficult for members of a team to observe the behaviours of others during communication and hence misunderstandings and misinterpretations tend to occur more often in GVTs. (Gibson & Gibbs, 2006; Gilson et al., 2015; Järvenpää & Leidner, 1999; Saarinen, 2016.) Moreover, virtual communication does not only make it more challenging to be active and exhibit social presence in virtual interaction, it also hinders spontaneous interaction, informal communication, information seeking, knowledge interpretation, and consensus building (Gibson & Gibbs, 2006; Gilson et al., 2015; Montoya-Weiss et al., 2001; Sivunen, 2007).

Other communication-related issues characteristic to the use of ICT in global virtual teams include the misuse of different communication tools due to prolonged response times or complete absence of responses (especially with e-mails), limited or complete lack of guidelines for when and how to use the tools, and a highlighted emphasis on task-focus rather than relational focus in communication (Bergiel et al., 2008; Sivunen, 2007; Weimann et al., 2010). In her essay on cross-cultural encounters in global virtual teams, Saarinen (2016) points out how a virtual working environment compelled

communication partners to be economical and efficient in their communication, making virtual meetings shorter and limiting the time for discussion related to ad-hoc topics or personal matters. What is more, the issues related to ICT further accentuated the perceived physical and psychological distance between GVT members (Saarinen, 2016). Eventually, challenges in the use of information and communication technology can lead to higher-level team-related issues such as decreased trust, low individual commitment and social loafing in GVTs (Järvenpää & Leidner, 1999; Weimann et al., 2010).

Table 2 below depicts a short summary of some of the advantages and challenges of GVTs discussed in above sections. However, it is noteworthy that the advantages and challenges global virtual teams can entail are ample and occur in various forms. Hence they should be considered situationally in relation to individual teams rather than as a generic classification characteristic to all global virtual teams.

Table 2 Advantages and challenges of global virtual teams

GVTs	Advantages	Challenges
Geographical and temporal dispersion	<ol style="list-style-type: none"> 1. Savings in travel costs and time 2. Environmental sustainability 3. Organisational agility and flexibility 4. Greater flexibility to employees resulting in increased employee performance, satisfaction and productivity 5. More effective organisational attraction, recruitment, and employee retention 	<ol style="list-style-type: none"> 1. Interpersonal interaction, personal contact 2. Spontaneous communication, peer engagement, creation of common ground followed by decreased team cohesion and trust building 3. Lack of awareness of or failure to appropriate situated knowledge 4. Delays in communication or decision-making 5. Lack of familiarity due to focus on work-related topics, limited informal personal communication 6. Loneliness, isolation, decreased belongingness 7. Less attention and effort exerted by distant team members, freeloading
Cultural and linguistic diversity	<ol style="list-style-type: none"> 1. Helps to stimulate creativity, innovation and originality 2. Discourages discrimination 3. Increases employee satisfaction 4. Enhances team effectiveness due to greater variety of ideas, perspectives and experiences 5. Motivates team members to get acquainted with each other 	<ol style="list-style-type: none"> 1. Different working practices, group behaviours, language skills 2. Different interaction styles (e.g. formality, openness, accuracy, attitudes to confrontation) 3. Lack of individuating information, ability to enter new groups 4. Attachment/commitment to/ identification with teams and its members 5. Knowledge-sharing, relationship-building, and intercultural learning 6. Linguistic errors hindering understanding and stimulating negative perceptions about one's trustworthiness and agreeableness 7. Communication and coordination difficulties followed by reduced performance and satisfaction 8. Team cohesion, misunderstandings, distrust, conflict, negative stereotypes, failure to reach agreement, make decisions, and take action
Use of ICT	<ol style="list-style-type: none"> 1. Interaction and collaboration across space and time 2. Participation in discussions and decision-making from afar 3. Real-time virtual discussions can enhance team spirit and the feeling of togetherness 4. Easier interaction from afar, improved team efficiency, more trustworthy collaboration 5. Visual anonymity, social distance, easier to discuss sensitive issues, eases shyer members' participation 6. Effective, task-focused communication 7. Diminishing negative effects of team diversity 	<ol style="list-style-type: none"> 1. Lack of social/non-verbal communication 2. Misunderstandings and misinterpretations 3. Challenging to be active and exhibit social presence in virtual interaction 4. Hindrances to spontaneous interaction, informal communication, information seeking, knowledge interpretation, and consensus building 5. Misuse of different communication tools due to the limited or complete lack of guidelines for when and how to use them 6. Prolonged response times or complete absence of responses 7. Emphasis on task-focus rather than relational focus in communication 8. Decreased trust, low individual commitment, social loafing

3 IDENTIFICATION

Research regarding the ways in which individuals connect themselves to and identify with various referents within organisational life has absolutely mushroomed since the 1990s (Sivunen, 2007; Sluss & Ashforth, 2008). While the most studied construct within the identification literature is above all organisational identification, organisational scholars have taken various perspectives to the types of identification employees experience (Sivunen, 2007). These include the aforementioned organisation (cf. meta-analysis from Riketta & Dick, 2005), but also identification with work relationships (Sluss & Ashforth, 2007; Walumbwa & Hartnell, 2011), one's occupation (Hassan, 2012), or with a work group or a team (Desivilya & Eizen, 2005; Henry, Arrow, & Carini, 1999; Sivunen, 2007; Solansky, 2011). As Sluss and Ashforth (2008, 807) expressively state "these separate yet related literatures have revealed much about how and why individuals feel connected to and cooperate within organisations, occupations, and role-related relationships".

The development of identification is particularly influenced and shaped when employees first enter the organisation. At that point, newcomers are primarily concentrated more on group identification rather than organisational identification (Eisenbeiss & Otten, 2008). In both conventional and virtual teams, common tasks and interpersonal relationships between team members cause interaction within the team to be perceived more salient than relationships or interaction with other members of the organisation (Sivunen, 2007). Also the relative size of the group is relevant for identification because people aim for optimal individual distinctiveness – i.e. a balance between inclusion in specific social categories and exclusion, or distinction, from other social categories. Consequently, identification with smaller groups such as the team may be a more prominent referent for identification than the whole organisation in general. (van Knippenberg & van Schie, 2000.) However, extant literature defines identification with a team or a group largely at the same manner as organisational identification is defined, i.e. as "the perception of oneness with or belongingness to [a collective], where the individual defines him or herself in terms of the [collective] in which he or she is a member" (Mael & Ashforth, 1992; Scott, Corman, & Cheney, 1998; Sivunen, 2007). Because of this, identification will be first discussed with the support from literature on organisational identification and the chapter will be subsequently finished by a closer focus to particularly group identification.

The following sections will be organized subsequently: firstly, chapters 3.1-3.3 will explore the question of what identification is. Identification is outlined in regards to the various definitions given by scholars over the research history of the construct, followed by a conceptual distinction from other related constructs, namely that of commitment, in order to avoid confusion with similar concepts. Moreover, the two theoretical tenets

forming the basis of identification are outlined. Secondly, the question of how identification occurs is explored through chapters 3.4-3.6 which will thus review different components, determinants, foci, and levels of identification. Finally, the last two sub-chapters will focus on identification specifically in the context of groups and, more specifically, of global virtual teams hence completing the theoretical framework of this study.

3.1 Definitions of Identification

The research on the construct of organisational identification (OID) has a long history within the domain of organisational science (Ashforth et al., 2008). The first detailed model of OID was elaborated already in 1958 by March and Simon who formalized its multilevel nature, antecedents, and outcomes. The last 30 years especially have seen an increased interest on identification and the construct has gained more foothold with the publications of authors such as Albert and Whetten, Ashforth and Mael, and Dutton, Dukerich, and Harquail. (Ashforth et al., 2008; Riketta, 2005.) Identification has been articulated by scholars in various forms, ranging from fairly narrow definitions, such as those following the Social Identity Theory and Self-Categorization Theory, to broader definitions including attributes that constitute identity and impact on identification and extending to behaviour following from identification (Ashforth et al., 2008).

Edwards (2005) provides a comprehensive review of the conceptualisation and operationalisation of organisational identification, including the various definitions given to OID in the extant literature. The review covers definitions such as the one from Dutton et al.¹ in which identification is defined in terms of “the degree to which a member defines him or herself by the same attributes that he or she believes define the organisation”, another one from Pratt (1998) who states that identification “occurs when an individual’s beliefs about his or her organisation become self-referential or self-defining” and finally one from Edwards himself who refers to identification loosely as “a key psychological state reflecting the underlying link or bond that exists between the employee and the organisation” (Edwards, 2005, 207, 215). However, Riketta (2005, 360) argues that the most comprehensive definition of organisational identification was given by Patchen² already in 1970 when he used the term to link together “(1) feelings

¹ Dutton, J.E., Dukerich, J.M. and Harquail, C.V. (1994). *Organisational images and member identification*. *Administration Science Quarterly*, 39, 239– 263.

² Patchen, M. (1970). *Participation, achievement, and involvement on the job*. Englewood Cliffs, NJ: Prentice Hall.

of solidarity with the organisation; (2) [attitudinal and behavioral] support for the organisation; and (3) perception of shared characteristics with other organisational members”. Eventually one of the most frequently appearing definitions of organisational identification is the one from Mael and Ashforth (1992, 109) who define OID as “the perception of oneness with or belongingness to an organisation where the individual defines him or herself at least partly in terms of their organisational membership”. The more individuals identify themselves with their organisation, the more they think and act from the perspective of their organisation (Gautam, Van Dick, & Wagner, 2004; van Dick, Wagner, Stellmacher, Christ, & Tissington, 2005).

The definitions of identification are derived from two theories, the social identity theory and the self-categorization theory, which will be presented below in chapter 3.3. However, before discussing the theoretical background for identification and its different components, a distinction between identification and similar constructs should be outlined in order to avoid potential conceptual confusions.

3.2 Related Constructs and Conceptual Distinctiveness

In addition to the variety of definitions that exist in the literature for organisational identification, scholars have often confused organisational identification with overlapping or similar constructs such as organisational commitment (OC), organisational loyalty, person–organisation fit, psychological ownership, and job embeddedness (Ashforth et al., 2008; Mael & Ashforth, 1992). In order to keep the scope of this literature review focused attention will be allocated only to the construct that is most often confused with identification, i.e. commitment.

The conceptual similarities become visible in several studies focusing on either organisational identification or organisational commitment or both. Hassan (2012) points out studies that use identification and commitment synonymously, or incorporate measures of identification in measures of commitment, or even cite papers on identification as studies on commitment. The most commonly studied type of organisational commitment, according to Mathieu and Zajac (1990), has been attitudinal commitment and so it will be used here to represent commitment in general. Attitudinal commitment is defined as “the relative strength of an individual's identification with and involvement in a particular organisation” and it can be characterized by three features (Mowday et al. 1982 according to Mathieu & Zajac, 1990, 172):

- 1) a strong belief in and acceptance of the organisation's goals and values,
- 2) a willingness to exert considerable effort on behalf of the organisation, and
- 3) a strong desire to maintain membership in the organisation.

Meyer et al. (2006) on the other hand define commitment in general as a force that psychologically binds an individual to a target and to a course of action of relevance to that target. From this perspective, commitment is a stabilizing force that gives direction or guidance to employee behaviour (Hassan, 2012). Consequently, individuals may become connected both to social foci such as organisations or work groups as well as to non-social foci such as professions, goals, and organisational initiatives. In short, both identification and commitment are complex concepts characterized by mind-sets that connect an individual to a collective and influence on behaviour suitable and relevant to that collective (Meyer et al., 2006). As Edwards (2005) notes, similarities between the two constructs are often perceived partly because both describe comparable psychological states consisting of feelings of attachment, belongingness, and membership.

Regardless of overlaps and significant correlations between the two constructs, conceptual differences between commitment and identification have been empirically examined and established by several academics (Gautam et al., 2004; Harris & Cameron, 2005; Riketta, 2005; Van Knippenberg & Sleebos, 2006). For instance, accepting an association with a collective as a part of one's self-concept does not in itself suggest a psychological bond to the collective nor does it necessarily result in behaviour relevant to the collective – the impact of identification on group relevant behaviours can be rather flexible and is contingent not only on the salience of the group but also on the context (Gautam et al., 2004; Meyer et al., 2006). This will be further discussed in the next chapter about Social Identity Approach. Moreover, organisational identification occurs when one's personal self, including one's values, goals, beliefs, and self-perception, merges with organisational self, indicating that the individual and the organisation become one – the organisation being included in individual's self-conception (Gautam et al., 2004; Van Knippenberg & Sleebos, 2006). Identification stems from the need to achieve and maintain a positive self-regard or high self-esteem (Edwards, 2005; Fuller et al., 2006). On the contrary, commitment is more of an attitude originating from a relationship in which the individual and the organisation are psychologically distinct and which is built on exchange-based factors such as effort and loyalty that are traded for benefits like salary, support, and acknowledgement (van Dick et al., 2005; Van Knippenberg & Sleebos, 2006). Finally, identification is inherently social, i.e. in connection to other people and groups whereas commitment, as stated above, can also occur to non-social foci such as professions, organisational aspirations, and courses of action such as change (Meyer et al., 2006).

The following subchapters will further the review on what identification is by focusing on the theoretical background and the conceptualization of identification. Subsequently, chapters 3.4-3.6 will explore how identification occurs by reviewing the

different components and determinants of identification as well as the different foci and levels of identification.

3.3 Social Identity Theory and Self-Categorization Theory

The construct of identification is principally founded on two closely related theoretical tenets, the Social Identity Theory (SIT) and the Self-Categorization Theory (SCT) which sometimes are together referred to as the Social Identity Approach (SIA) (Mukherjee et al., 2012; van Dick, 2001; van Dick et al., 2005). Following the initial efforts of Ashforth and Mael (1989) to systematically apply the theory of social identities to organisational contexts, SIT has since become one of the dominant approaches to identification and over the last decades scholars have widely assumed it as the lens through which to understand issues of identity and identification (Edwards, 2005; Riketta, 2005; Scott, 2007; van Dick, 2001).

The basic assumption of the SIT assumes that one's self-concept is formed by one's personal identity, which includes distinctive individual characteristics such as abilities and interests, and by a number of social identities which follow from the need of individuals to maintain and enhance a positive social identity through group memberships (Edwards, 2005; Kim, Chang, & Jae Ko, 2010; Liu, Loi, & Lam, 2011). In short, the core of the SIT can be summarized with the below three suppositions (van Dick, 2001; van Dick et al., 2005):

1. Individuals strive for the achievement and enhancement of a positive self-esteem
2. A person's self-perception is based partly on their social identity which stems from their memberships in different groups
3. In order to maintain a positive social identity, the person strives for positive evaluations of the group in comparison with relevant other groups.

The Self-Categorization Theory extends the Social Identity Theory in terms of a group member's behaviour within the groups (van Dick, 2001). The basic assumption of SCT suggest that individuals have a need to simplify their social environment by categorizing people into groups based on perceived similarities and differences (e.g. regarding gender, race, nationality etc.) (Edwards, 2005; Ullrich, Wieseke, Christ, Schulze, & Van Dick, 2007). Categorization is followed by comparison occurring on different levels: on a personal level between individual people, on a group level between members of distinct groups, or on a superordinate level as human beings in comparison with other species (van Dick et al., 2005). Self-categorization theory further proposes that the salience of a specific social category is determined by its accessibility and the

fit of the category to the situation (Ullrich et al., 2007). Van Dick et al. (2005) provide examples of occasions where category salience may increase, including e.g. situations in which a category is specifically mentioned, the category is set into a context of other relevant categories, or the category is set into conflict with other categories. As a result, self-perceptions vary on a continuum where on the one hand the shared social identity may depersonalize individual self-perception and action, i.e. a person experiences him- or herself exclusively as a group member defined solely by the shared characteristics of that group or, on the other hand, a person may perceive themselves as a unique individual defined only by his or her idiosyncratic personality (Lipponen, Helkama, Olkkonen, & Juslin, 2005; Ullrich et al., 2007). Accordingly, when a group's *identity* is based on some specific attributes, then *identification* with that group represents the strength of the internalization of these attributes as defining one's self (Ullrich et al., 2007).

All in all, the theoretical strength of the Social Identity Approach is grounded in its ability to explain how and why individuals identify themselves and, in case of salient social identities, which particular groups become relevant for behaviour (Ullrich et al., 2007; van Dick, 2001). This "self-definitional or self-referential aspect of being an organisational member" as van Dick et al. (2005, 192) state, is the most important motivation for individuals to adopt the successes and failures of their organisation as their own and, consequently, endeavour to behave in ways that are beneficial for their organisation as a whole.

3.4 Components of Identification

As stated earlier, identification can be understood as the way employees think of themselves in relation to a collective, thus involving a certain degree of internalisation of the collective's attributes (Gertsen & Zølner, 2014). Overall identification is multidimensional by nature and consists of three components (Hassan, 2012, 387; van Dick, 2001, 270):

- (1) a cognitive component, i.e. the knowledge of membership in a certain group
- (2) an evaluative component, i.e. the value connotation assigned to that group and
- (3) an affective component, i.e. the emotional investment in the above two components

Other researchers have also added a fourth component which embodies the behavioural element of identification (Gautam et al., 2004). A further clarification of the different components of identification is provided by Ashforth et al. (2008) in their model

consisting of the “Core of Identity”, the “Content of Identity” and the “Behaviours of Identity”, depicted below in Figure 3.

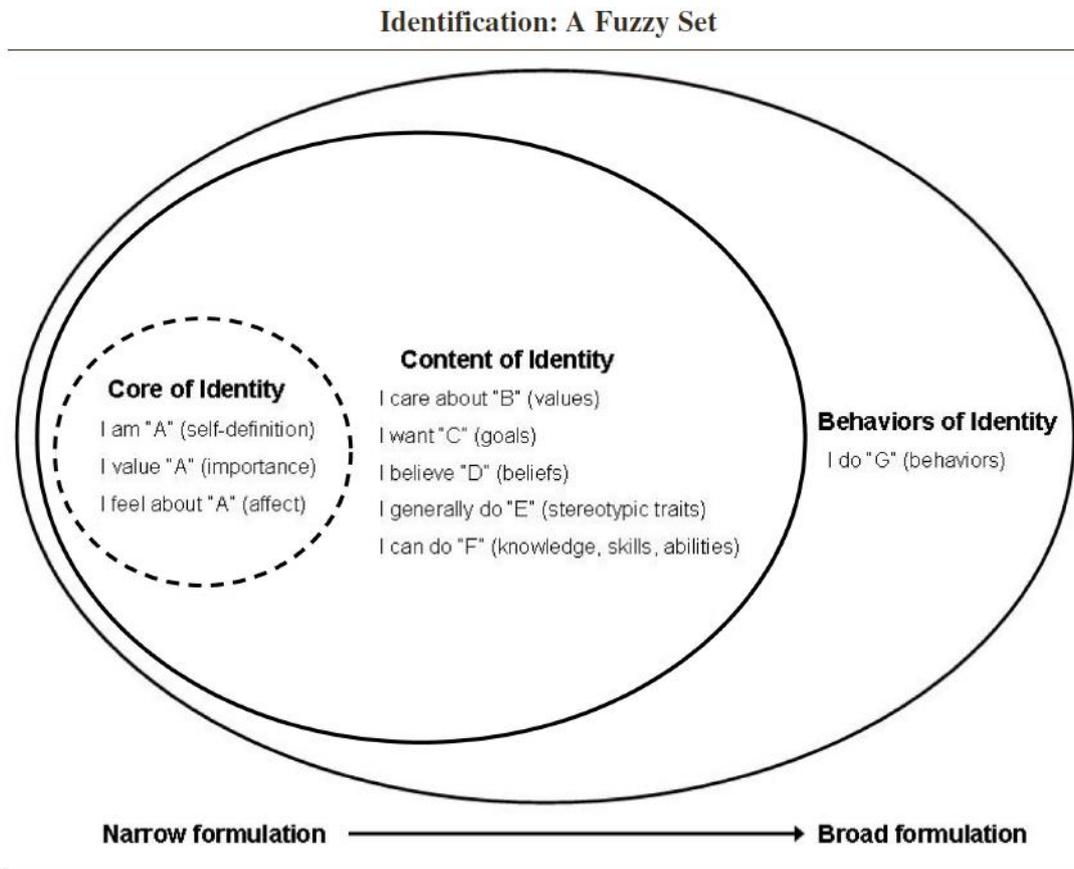


Figure 3 The components of identification as presented by Ashforth et al. (2008, 330).

The first circle, the core of identity, includes all the above mentioned components - cognitive, evaluative and affective. The second ring includes the central, distinctive, and more or less permanent attributes of social identities (e.g. values, goals and beliefs), and it is separated from the first circle only by a dotted line. This indicates that the content attributes are more independent and that identification does not inevitably cover each and every element. For instance, if some of these attributes are not clearly articulated or well developed, or they are for example implicit, conflicted, or adopted but not enacted, identification may result in the lack of acceptance of certain attributes. Consequently, the strength of identification is determined by not only how well the elements in the first ring but also how well the elements in the second ring are adopted as one's own. (Ashforth et al., 2008.) What is notable, however, is the line between the second and the third ring that is referring to the behaviours of identity. Ashforth et al. (2008) argue that although the construct has been shown to be strongly associated with organisationally

relevant behaviours, behaviour should still be regarded more as a probabilistic outcome of identification, rather than as one of its essential components.

3.5 Determinants of identification

Previous literature on identification has outlined several different types of factors that can to some extent predict the development of identification. Determinants for identification include, but are not limited to, similarity of defining attributes, social networks and communication climate, perceived organisational support, perceived organisational justice, and perceived internal respect. These will be discussed further in the following sections, but they are shortly summarized in the below Table 3.

Table 3 A brief summary of the main determinants of identification

Determinant	Description	Authors
Similarity of defining attributes	Similarity between an individual and the people in the group, the activities of the group, and/or the preferences of individuals evokes identification.	Gonzales and Chakraborty (2012); Kim et al. (2010); van Knippenberg & van Schie (2000)
Social networks and communication climate	Social networks provide the environment where identification is shaped through interactions and communication. Communication climate influences identification through trust and openness in communication, workgroup support, and participatory decision-making.	(Jones & Volpe, 2011); Shearman (2013); Smidts, Pruyn, & Van Riel (2001); Bartels, Pruyn, de Jong, & Joustra (2007)
Perceived organisational support	The way group members feel their group treats them will influence on how motivated they are to respond and reciprocate with stronger/weaker identification.	He, Pham, Baruch, & Zhu (2014); Wiesenfeld et al. (2001)
Perceived organisational justice	Procedurally just organisations provide information to their employees that they are valued and respected, leading to employees' increased sense of self-regard. This will consequently have a positive impact on identification.	Edwards and Peccei (2010); Lipponen et al. (2005)
Perceived internal respect	Due to the positive emotional experiences triggered by personal recognition, the more personal respect and appreciation individuals perceive, the more susceptible they are to identification.	Gertsen and Zølner (2014); Fuller et al. (2006); Bartel, Wrzesniewski, and Wiesenfeld (2012)

Similarity of defining attributes. As Gonzales and Chakraborty (2012) state, organisational identification is contingent on the perception of similarity with an organisation's identity. This is because members are better able to process information about the organisation since the features defining them and the organisation are convergent. The identity of an organisation is observed through its central characteristics such as reputation, values and mission as well as the individual characteristics of organisational members and managers. (Gonzalez & Chakraborty, 2012.) Correspondingly, similarity between an individual and a group can be considered as one of the determinants of identification, because identification is based on the categorization of the self as per similarity to others within the category. The notion of similarity relates to the people in the group, to the activities of the group, as well as to

the preferences of an individual. (Kim et al., 2010; van Knippenberg & van Schie, 2000.) Furthermore, identification follows essentially from the experiences with an employee's proximal organisational members, i.e. through experiences with people they have the most contact with, such as supervisors and members of the same work group or department (Gonzalez & Chakraborty, 2012).

Social networks and communication climate. Jones and Volpe (2011) studied how identification is influenced by one's social networks that are characterised by their size, relationship strengths and density. Network size is measured by the number of people with whom one interacts while relationship strength is defined by the frequency of interaction, duration, and closeness, and it is highly correlated with communication. Finally, network density, i.e. the interconnectedness of the network, is described by the extent to which people in a network know one another. Network density enables communication, trust, and social support among organisational members (Jones & Volpe, 2011). All in all, social networks provide the environment where opinions, information and behaviours of salient others are rendered accessible to the individual and where identification is shaped through interactions and communication. The results from Jones and Volpe showed that organisationally affiliated network size had a positive impact on the strength of individuals' identification because it promoted communication with others and hence supported the process of identity interpretation and enactment. (Jones & Volpe, 2011.) Similarly, Shearman (2013) points out the influence of a positive communication climate on the development of identification, when taking into account trust and openness in communication, workgroup support, and participatory decision-making. The positive impact of communication climate on identification has found support also from other previous studies such as those from Smidts, Pruyn, & Van Riel (2001) and Bartels, Pruyn, de Jong, & Joustra (2007).

Perceived organisational support is a social exchange variable which refers to the extent to which employees believe that their organisation values their contributions and cares about their well-being (He, Pham, Baruch, & Zhu, 2014). Antecedents of POS include e.g. organisational justice, supervisor support, and organisational rewards (Rhoades & Eisenberger, 2002). Wiesenfeld et al. (2001) discuss the link between identification and perceived work-based social support, i.e. the degree to which employees perceive positive social relationships with others in their workplace. They argue that when employees perceive high levels of social support from the principal actors in their workplace, such as co-workers, supervisors and the top management, it is more likely that they feel central, included, valued and respected. This will in turn lead individuals to perceive their organisational involvement as self-enhancing and, through the principle of reciprocity, become more motivated to respond to the work-based social support with stronger identification. (Wiesenfeld et al., 2001.) He et al. (2014) further mention the group engagement model according to which people believe they are

valued and appreciated when they perceive respect toward themselves and gain a higher self-esteem. As previously discussed, self-esteem and self-enhancement are principal motivators behind social identification and hence the way group members feel the group treats them will influence on how their social identity is constructed in regards to their group membership (He et al., 2014).

Perceived organisational justice. Edwards and Peccei (2010) also refer to the group engagement model, discussing it implicitly in connection with procedural justice. Correspondingly, individuals who identify with their employers are influenced by the degree to which they perceive to be treated fairly by them. In other words, procedurally just organisations once again provide information to their employees that they are valued and respected, influencing thus positively on the likelihood of identification as employees' self-concepts improve through an increased sense of self-regard. (Edwards & Peccei, 2010.) Lipponen et al. (2005) present recent research on organisational justice demonstrating positive links between identification and the perceived fairness of organisational procedures (i.e. procedural justice) as well as identification and supervisor behaviour (i.e. interactional justice). Fair treatment can be argued to indicate a positive and respected position within a group, which leads to increased identification, whereas unfair treatment weakens identification because it indicates marginality and disrespect.

Perceived internal respect. Procedural justice and perceived organisational support are often discussed in relation to respect that is perceived by an employee in their workplace. Also perceived internal respect has been shown to be linked with identification. Gertsen and Zølner (2014) present studies which have discovered that the more personal respect and appreciation individuals perceive, the more susceptible they are to identification. This is due to the positive emotional experiences triggered by the personal recognition (Gertsen & Zølner, 2014). Respect, according to Fuller et al. (2006), is a reflection of the extent to which an individual feels that they are a valued member of a collective. Bartel, Wrzesniewski, and Wiesenfeld (2012) argue that employees' perceptions of their respect within the collective provide an important indicator of the quality of their relationship with the collective as a whole. They further discuss employees' perceived respect in relation to perceived treatment in the workplace which is judged against the normative standards such as its values, customs and behaviours that define the organisation. Employees feel respected by their supervisors and co-workers when they perceive they are treated in normatively appropriate and inclusive ways. (Bartel et al., 2012.) Perceptions of respect within the organisation are related to the motivation to achieve and maintain a positive personal identity and it answers to the question of how the person is thought of within the organisation (Fuller et al., 2006).

3.6 Multi-foci Identification

A final issue worth noting in the discussion on the concept of identification is the existence of multiple identities and hence multiple foci of identifications. Scholars have widely argued that identification is not confined to a single level or target, but employees can, just as easily as identifying with their organisation, also form psychological bonds with other organisational entities or collectives varying from professions to teams and from workgroups to departments (Marique, Stinglhamber, Desmette, & Goldoni, 2014; Ullrich et al., 2007; Vough, 2012).

The existence of multiple identifications is due to the often complex and multi-structured nature of organisations which results in individuals being members of several groups and having a number of sources or targets of identification (Edwards & Peccei, 2010; Reade, 2001). In practice, an individual may have as many social identities as the individual has group memberships and, since identification with one group does not necessarily mean exclusion of identification with others, some or all of them can be felt simultaneously and to various degrees (Olkkonen & Lipponen, 2006). Ashforth et al. (2008) further discuss the concept of “nested identities”, suggesting that individuals have different levels of self in organisations, ranging from lower level identities, e.g. one’s workgroup and department, to higher-level identities, e.g. one’s organisation and industry. Identifications with various levels are therefore incorporated, i.e. nested, into one another (e.g. an employee can be part of a team, a department as well as an organisation, or, in the case of global organisations, an employee can identify with a local team, local subsidiary and the parent company) (Ullrich et al., 2007).

A number of academics have argued for identification being stronger with proximal targets, e.g. the workgroup, than more distant targets such as the organisation in its entirety (Riketta & Dick, 2005; Vough, 2012). This might be explained by the more salient nature of proximal identities as employees come in contact with these group members more often, perceive more similarities with them and, for instance, have greater exposure to group symbols etc. (Ashforth et al., 2008; Vough, 2012). However, the identities that will finally influence behaviour and attitudes, and the strength of the impact, depends eventually upon an individual’s evaluation of the salience of a particular identity and consequently on the context of identification (Au & Marks, 2012).

3.7 Group Identification

As previously stated, group identification is defined in the current literature largely in the same manner as organisational identification. It encompasses a personal cognitive

connection to a social group (or groups), i.e. an experienced membership in a group such as a work team, as well as a certain extent of value and emotional significance allocated to that membership. When an individual identifies with a group, it suggests that they define themselves with the same characteristics that are perceived central to the group. This is also referred to as “the perception of oneness” with the group. The individual thus experiences a shift in the salience of a social identity over one’s personal identity. (Kachanoff, Ysseldyk, Taylor, de la Sablonnière, & Crush, 2016; Riordan & Weatherly, 1999; Solansky, 2011.) Identification is central to teamwork because it impacts team performance in terms of co-operation, group cohesion, turnover, commitment to the team and its goals, motivation, job satisfaction, employee compliance, reduced conflict, the value placed on the team’s welfare, and actions taken in support of the group (Desivilya & Eizen, 2005; Fiol & O’Connor, 2005; Solansky, 2011; van Knippenberg & van Schie, 2000).

The dimensions of identification, whether with the organisation or a smaller group, remain the same. That is, identification includes a cognitive component which impacts one’s self-concept, evaluative and affective components which refer to the value and emotional significance attached to the group, as well as a behavioural element which inspires the individual to act in a way that is supportive of the group. Accordingly, individuals perceive themselves to be a member of a social group, thus having a psychological connection with the fate of the group. The successes and failures of the group are experienced as if they were one’s own and the individual behaves in support of the group because it generates feelings of pride and respect. Simply put, the stronger the identification with a specific group, the more one’s attitudes and behaviour are governed by the membership to that group. (Kachanoff et al., 2016; Riordan & Weatherly, 1999; Van Dick, Wagner, Stellmacher, & Christ, 2004; van Knippenberg & van Schie, 2000.)

Complementary to the determinants of identification in the organisational context discussed in the previously, three determinants in particular are proposed by scholars in relation to group identification. These are (1) similarity between the individual and the group, (2) interpersonal attraction within the group and (3) interdependence of the group. What is characteristic to these three determinants is that they interact together to stimulate identification. Similarity between the individual and the group is the same determinant for both organisational and group identification and since it is covered in the previous sub-chapter, it will not be discussed here any further. However, similarity is an important source of identification, because it also yields interpersonal attraction, which is another source of identification. (Desivilya & Eizen, 2005; Eisenbeiss & Otten, 2008; Henry et al., 1999.) According to Eisenbeiss and Otten (2008, 2138) interpersonal attraction is more strongly related to group identification than to organisational identification because it is “a group-related variable that should be more determined by

the proximal work context”. Interpersonal attraction refers to the affective bonds between group members and it leads to repeated positive interaction which strengthens self-identification as a group member. Interaction eventually results in behavioural interdependence between group members, consequently causing in-group formation which in turn is necessary for group attraction and self-categorization to occur. Hence, the three determinants of identification, i.e. similarity, attraction and interdependence, work together to stimulate group identification. (Eisenbeiss & Otten, 2008; Henry et al., 1999.)

As a final topic of discussion, it should be pointed out why it is important to focus on identification specifically at the team level rather than on the organisational level. Firstly, as conventional wisdom suggests, teams are typically smaller than the organisation they are part of, and in order to achieve an optimal balance of individual distinctiveness (i.e. the balance between inclusion in specific social categories and exclusion from others) people are more disposed to identify with relatively smaller groups. Secondly, employees are likely to experience more similarities with proximal targets such as co-workers in their work group rather than with the organisation as a whole. Thirdly, employees tend to spend most of their organisational lives in their work groups which makes their teams both familiar and attractive. (van Knippenberg & van Schie, 2000.) As discussed above, similarity and attractiveness are strong determinants of identification which thus furthers the soundness of above arguments. Moreover, in their study on the importance of work group identification relative to organisational identification Van Kippenberg and van Schie (2000) also demonstrated how the former was both stronger than organisational identification as well as more strongly related to organisational attitudes. Thus, not only would it be an “oversimplification to depict an organisation as a single indivisible entity, without acknowledging that organisations are also networks of groups that may elicit feelings of identification in themselves”, a closer focus on the different organisation levels can also contribute to more accurate accounts of organisational behaviour in general (van Knippenberg & van Schie, 2000).

3.8 Identification in global virtual teams

Regardless of the vast literature on both global virtual teams and identification, studies combining the two research streams remain still scarce in number. When attempting to provide a review on the extant literature exploring identification in the context of global virtual teams, only 10 journal articles were discovered. In addition, a few papers were also found that examined identification in the context of virtual employees rather than teams. However, in order to keep the focus on identification in global virtual teams, the studies discussing identification merely among teleworkers (i.e. virtual workers who are

not located within the organisation nor part of a team) are excluded from the following review. These included one from Wiesenfeld, Raghuram, & Garud (1999) who studied organisational identification among virtual workers, one from Thatcher and Zhu (2006) who explored telecommuting and identification, and one from Bartel, Wrzesniewski, and Wiesenfeld (2012) who investigated physical isolation, perceived respect and organisational identification of virtual employees.

One of the earliest papers on identification with virtual teams was produced by Fiol and O'Connor (2005) who wished to address identification development in hybrid and pure virtual teams, and the ways in which it differs in face-to-face teams. According to the authors, virtual teams differ from hybrid and face-to-face teams in terms of the extent of experienced uncertainty, presence of individuating communication cues, degree of face-to-face contact, and amount of politeness rituals, and that these differences impact on identification development and the effects of diversity and visible social cues on identification.

Fiol and O'Connor (2005) further posit that as virtual teams tend to be more culturally diverse and geographically dispersed, the development of team identification may be more limited. This is because diversity tends to engender perceptions of otherness and thus increase the salience of other social categories than that of the team's, and because geographical proximity causes co-located subgroups to place attention disproportionately at the local rather than the team level, resulting in the higher salience of local subgroups relative to salience of the whole team. (Fiol & O'Connor, 2005.) The diversity argument is supported by a later study from Au and Marks (2012) who examined the impact of perceived cultural differences on identification in virtual teams. Their results show how perceived cultural differences and the consequent variations in ways of working have a significant impact on identification in virtual teams. The results are explained by VT members' preference to identify with subgroups from either similar cultural backgrounds or geographic regions, as employees are likely to be more comfortable interacting with those who are similar to them. (Au & Marks, 2012.) In relation to the effects of geographical dispersion, O'Leary and Mortensen (2010) studied geographically dispersed teams and the impact of team configuration on individual, subgroup, and team-level dynamics, namely identification, transactive memory, conflict, and coordination. The authors suggest that due to the formation of geographically defined subgroups, virtual teams experience significantly weaker identification with the team, in addition to less effective transactive memory, more conflict, and more coordination problems. This is due to social categorization as people maximize similarities within and differences between members of both in-groups and out-groups. Moreover, with an imbalanced number of members in different subgroups, the effect is heightened and felt more strongly particularly by the minority subgroups. (O'Leary & Mortensen, 2010.)

However, Fiol and O'Connor (2005) also advocate that "while proximity among team members is thought to be a critical driver of identification, identification often develops across large distances". Wilson, O'Leary, Metiu, & Jett (2008) provide support for this with their study on the phenomenon of perceived proximity, i.e. the feeling of closeness to geographically distant colleagues. They argue that identification, together with communication, influences the perception of proximity by creating a basis for common ground and mutual understanding, by reducing uncertainty, and by stimulating positive expectations and attributions of the other even when lacking visible and observable cues of their behaviour and motives. In the absence of a shared identity, people tend to produce faulty attributions about others, hence emphasizing category differences instead of similarities, and consequently causing the reduction of perceived proximity. (Wilson et al., 2008.)

Other scholars have focused on the communicative nature of identification. Sivunen (2006) for example has studied team members' identification with the team through computer-mediated communication. Sivunen argues that identification with the team is more complex in virtual teams relative to traditional teams due to their geographical dispersion and use of ICT. One perspective used in explaining how team members can identify with the team through ICT is the social identity model of deindividuation effects, also known as the SIDE-model. The SIDE-model emphasizes the salience of the social and individual identities that people lean on in the virtual context. That is, in the absence of observable cues, team members are inclined to assume similarity between colleagues by projecting perceived attributes of the team onto all participants without verification, hence shifting from a personal to a social identity. This so-called deindividuation leads to perceived reduction of intragroup differences and the consequent increase in the salience of a group identity. Due to the lack of discernible cues it is difficult to disconfirm the established assumptions, which prevents their rejection or modification. Consequently, when a VT member's team identity is salient, certain technology characteristics, such as visual anonymity, can heighten team identity through de-individuation. (Fiol & O'Connor, 2005; Scott, 2007; Sivunen, 2006.) Albeit not entirely focused on identification particularly in the virtual context, also Scott (2007) studied computer-mediated communication and virtual work with respect to identification. Apart from the SIDE-model, Scott references work examining identification in relation to the use of different communication technologies, e.g. studies on the relevance of media richness in enabling organisational identification. For instance, some studies show how virtual teams that use lean media (such as asynchronous text communication) as opposed to rich communication media (e.g. video and audio communication) experience greater advantages over co-located teams. (Scott, 2007.) In addition, Sivunen (2007) further explores in her doctoral dissertation the subject of social interaction, communication technology and identification with the team

in geographically dispersed virtual teams. She concludes that her findings provide a multidimensional view on social interaction in GVTs, as team members differ in their attitudes towards computer-mediated communication and in their experiences in regards to identification with the team. However, members of virtual teams are able to strongly identify with their team through daily interaction via ICT. (Sivunen, 2007.)

Hakonen and Lipponen (2007, 2008, 2009) have also produced a number of studies on identification with virtual teams, specifically with three papers on the antecedents and consequences of identification with virtual teams (Hakonen & Lipponen, 2007), procedural justice and identification within virtual teams (Hakonen & Lipponen, 2008), and on the relationship of trust and identification to the effectiveness of virtual teams (Hakonen & Lipponen, 2009). According to their results, perceptions of fair decision-making and perceived quality of interaction are important for identification in virtual teams and both trust within and identification with VTs are crucial for high team effectiveness (Hakonen & Lipponen, 2007, 2009). In addition, the authors also contradict the conventional argument that identification is more difficult in virtual than in face-to-face interaction. By providing support for the argument that frequency of face-to-face meetings is not directly related to VT identification, Hakonen and Lipponen posit that dependence on ICT does not in fact hamper identification in VTs. (Hakonen & Lipponen, 2008.) Moreover, they advocate the formation of a shared team identity, arguing that it is essential for VTs because it provides a sense of belonging despite the lack of face-to-face interaction. This is in line with the ideas of Mukherjee, Hanlon, Kedia, and Srivastava (2012) who provide a model of organisational identification for VT employees and explore the role of cultural dimensions in a virtual setting. According to their paper, in the absence of face-to-face contact and the consequent lack of visible, tangible elements that generally define a group, VT members' "sense of togetherness and perceptions of belonging are glued together by organisational identification" (Mukherjee et al., 2012, 531).

Overall, the literature on global virtual teams and identification is yet rather scarce and somewhat scattered in focus, and although identification seems to provide prominent opportunities in bringing together the dispersed members of global virtual teams, there still remains an extensive gap in literature combining the two research streams of identification and of global virtual teams.

In synthesis, global virtual teams are culturally diverse, geographically dispersed and communicate mainly via information and communication technologies. This brings about a lot of benefits organisations can take advantage of, but also a number of challenges such as limited interpersonal communication, lack of belongingness and commitment with the team, and decreased team effectiveness. However, one way of starting to tackle these challenges can be through the development of group identification. In such a way individuals assimilate common values and attributes to

their own self-identity and hence, in an attempt to enhance their identity, part of which is derived from one's group identity, they will aim for better organisational and team-related results. Consequently, this will not only improve issues such as team cohesion, satisfaction, work motivation, and team co-operation, but it will also provide higher performance-related results for instance in terms of innovation and improved effectiveness.

4 METHODOLOGY

The purpose of this thesis is to study group identification in global virtual teams characterized by geographical and temporal dispersion, use of ICT in communications and cultural and linguistic diversity. An important part of the study is to understand how members of a global virtual team experience group identification and how do geographical and temporal dispersion, virtual interaction and cultural diversity reflect on these experiences.

The following chapter will present in detail the research design applied in this study, describing the case selection and the methods used for data collection and analysis while aiming at providing a solid justification for the methodological decisions taken in regards to how this research has been carried out. Finally, at the end of the chapter the trustworthiness of the research will be discussed.

4.1 Research approach

There are a number of factors that influence on a researcher's decision to adopt a certain research design. Not only is it affected by the researcher's ontological and epistemological worldviews and decisions taken in regards to research strategy and research methods, but it is also shaped by the personal experiences of the researcher and the research problem itself (Creswell, 2009, 18).

As Ghauri and Grønhaug (2002, 47) explain, the strategic choice of research design should result in an approach that permits the best possible way to provide adequate answers to the research problem while taking into account the constraints on the researcher caused by limits such as time, resources, or competences. To this end, this study adopts a qualitative approach to the research problem, with a primary emphasis on gaining understanding on how group identification is constructed and sustained in global virtual teams. Qualitative research can be used for shedding light on a phenomenon about which little is known. It is also often used as a means for uncovering individual experiences about or behaviour in a certain social context or for exploring the meaning individuals or groups ascribe to it. (Creswell, 2009, 4; Ghauri & Grønhaug, 2002, 87.) According to Creswell's (2009, 4) description about the process of qualitative research, it consists of gradually emerging questions and procedures, with data typically collected in the participant's natural environment, data analysis inductively moving from specifics towards more general themes, and with the researcher making interpretations of the meaning of the data in order to render the complexity of the studied phenomenon. In this study, qualitative approach demonstrates the best suitability for the research problem as it provides a means to gain an in-depth

understanding to group identification in a rather new context with little existing literature exploring it, i.e. the context of global virtual teams. Due to the complexity of the phenomenon and the number of different potential factors that might influence on group identification in such a context, the adoption of quantitative research methods might not be as feasible in this specific study nor might it serve as efficiently the purpose of the research in understanding *how* identification occurs in global virtual teams. Qualitative approach seems more appropriate in terms of providing a thorough understanding of group identification and its meaning for those involved as opposed to the more objective “outsider view” distant from the collected data as is characteristic to the quantitative research approach (Ghauri & Grønhaug, 2002, 86; Merriam, 2014, 5).

As is alluded by the above, this study leans principally on the interpretive research perspective according to which reality is socially constructed and exists in multiple non-observable forms with a variety of interpretations on a single issue (Merriam, 2014, 8). Creswell (2009, 8) explains it as a worldview in which individuals seek understanding of their living and working environments and develop a variety of subjective meanings of their experiences, thus urging the researcher to perceive the complexity of views. This is in line with the general trend of qualitative research which often adopts an interpretive or constructivist approach to research and it is also aligned with the researcher’s own worldview (Merriam, 2014, 8-9).

In order to gather detailed insights about the focus of this research, i.e. group identification in global virtual teams, the instrumental case study method with multiple cases is adopted as the method of research. The use of case studies in business research is particularly worthwhile when the studied phenomenon is challenging to explore outside its real-life context, when the related concepts and variables are problematic to measure in numerical terms, and when the aim of the research is to gain a rich understanding of the context of the research and the processes being enacted within it (Ghauri & Grønhaug, 2002, 171; Saunders, Lewis, & Thornhill, 2003, 93). Moreover, a case study can be quite a beneficial means of exploring contemporary theory and perhaps even challenging it (Saunders et al., 2003, 93). This is also the aim of this study, i.e. to understand group identification in the context of global virtual teams where the different aspects of identification are difficult to quantify but where the qualitative exploration of the subject is essential in order to contribute to the extant theory.

When conducting an instrumental case study the focus is on the phenomenon, in this case group identification, which is studied by using a number of cases, such as teams or individuals, that act as *instruments* producing knowledge that extends beyond the cases themselves (Eriksson & Kovalainen, 2008, 117, 124; Merriam, 2014, 40). The objective is thus to explore, clarify and illuminate the phenomenon rather than the cases and eventually to extend the current theory. In a multiple case study not all the features of the cases are necessarily analysed in great detail, but the emphasis is laid on collecting

similar kind of empirical knowledge on each case in order to gain material for comparisons or for cumulating data to deepen the understanding on the issue at hand. Moreover, it is typical for such case studies that the themes, issues and questions being explored are somewhat pre-defined, for instance in relation to prior literature. (Eriksson & Kovalainen, 2008, 122-123.) A summary of the themes and topics used in this study can be found in the operationalization table in Appendix I Operationalisation table and they have been formed based on the literature review of chapters 2 and 3. The description of the selection of cases is detailed in the below sub-chapter.

Finally, the aim of this thesis will not be to produce universal generalizations but rather to examine the topic from the perspective of the case teams and hence to provide in-depth insight into the studied phenomenon and to further the current knowledge of group identification particularly in the GVT context. Consequently, the decision to focus on qualitative case studies stems not only from the researcher's interests in insight, discovery and interpretation rather than hypothesis testing but also from the point that the research design discussed above appears to be the most appropriate approach to gain elaborate answers to the research problem of how is group identification constructed and sustained in global virtual teams.

4.2 Case selection

This study will be conducted within one multinational B2B-company that due to privacy matters wishes to remain anonymous. The company works on a global scale within the marine and energy markets and has over 18 000 employees spread out in more than 200 locations in over 70 countries. At this point, it should be briefly pointed out that the researcher is currently working for the case company which provides the convenience of access to key personnel to be interviewed. However, the researcher has not and is not currently working either in any of the case teams nor with any of the members of the studied virtual teams which decreases the risk of potential research bias.

The units of analysis, i.e. the cases selected for this study, consist of two comparable but distinct virtual teams that are each situated from two to three different locations and in total on three different continents. The Asia team has two locations, one in Singapore and one in Australia, and the Europe team is located in Finland, Sweden, and Poland. Both of the teams are principally stable in terms of team membership and both use virtual methods for communication and collaboration. The two teams share the same function of operating spare part sales coordination but their distinguishing feature is their geographical location and geographically defined responsibility over sales in their corresponding locations, i.e. the European team is responsible for sales in the Baltic and the Black Sea and the Asian team is responsible for sales in South East Asia and

Australia. The sales areas are further divided into specific countries handled individually by named team members, i.e. one team member is principally responsible for the sales of one or more specific countries and other team members only assist as a “back-up person” when so needed. Furthermore, the teams vary in terms of cultural and demographic composition.

The single most defining characteristic of a case study research lies in delimiting the unit of analysis, i.e. the case, to represent a comprehensive sample of the studied phenomenon (Merriam, 2014, 40-41). Merriam (2014, 77) argues that the most appropriate sampling strategy in qualitative research is the non-probabilistic sampling of which the most common form is the *purposeful sampling*. Purposeful or criteria-based sampling leans on the objective of the researcher to discover, understand, and gain insight into the phenomenon being studied and on the selection of a sample from which the most can be learned. Of both teams, one to three participants were chosen from each location, consequently resulting in the selection of 11 team members in total. The selected cases are a result of both convenience sampling and typical sampling: firstly, the cases are based on convenience sampling because of the researcher’s access to these particular teams but also on typical sampling due to the fact that the selection of the specific teams was based on pre-defined criteria (detailed below in Table 4) representing the characteristics of a typical global virtual team defined in the theoretical framework in chapter 2. In addition to pragmatic reasons for the selection of the units of analysis, the chosen cases also provide a good opportunity for obtaining ample theoretical insight into group identification in GVTs due to the diversity of the selected samples in terms of geographic and cultural compositions. Also three other teams were available for closer exploration, but these were excluded because they did not meet all of the case selection criteria. For instance, one team was less than a year old and another team had members who represented only one culture.

Table 4 The case selection criteria

Selection criteria	Justification
A team that communicates via ICT	In order to gain insight into how virtual interaction reflects on group identification
A team that is geographically dispersed	In order to gain insight into how the global nature of the team reflects on group identification
A team that is culturally diverse	In order to gain insight into how cultural diversity reflects on group identification
A team that is at least one year old	In order to gain a genuinely in-depth insight into how group identification is experienced in a global virtual team
Accessibility to key people	In order to gain access to relevant individuals and to allow for multiple perspectives on the topic to be explored

4.3 Data collection

The operationalization of the research has been designed on the basis of the theoretical framework and it consisted of four phases. First, the research problem was divided into three research questions supporting the exploration of the main research problem. Second, each research question was connected with their relevant theoretical equivalents discovered in the literature review. Third, the theoretical equivalents were operationalized in the form of seven interview themes, and fourth, the final interview questions were designed in accordance to the main interview themes. The links between the research problem and research questions, their theoretical equivalents, and the interview themes are available in the operationalization table in Appendix I

Operationalisation table. A comprehensive list of the questions asked during the interviews can be found in Appendix II Interview questions.

The primary method for collection of empirical data was carried out through qualitative, semi-structured interviews that were conducted and recorded in one-on-one virtual meetings via Skype For Business. Interviews in general are purposeful discussions between the researcher and their study subjects. They are one of the most common methods of data collection in qualitative research and an efficient way of gathering valid and reliable data with a relevance to the research questions. Semi-structured interviews include some open-ended questions posed to all the interviewees and the possibility of the interviewee to respond to each with their own words. Researcher typically has a pre-determined list of themes and questions to be covered, but the order of questions may vary and some of the questions may be omitted, replaced, or supplemented with additional questions based on the flow of the conversation. (Eskola & Suoranta, 1998, 85-86; Saunders et al., 2003, 245-247.) In order to avoid misunderstandings caused by language barriers or connection problems, each question was shown to the participant as a PowerPoint-slide at the time the question was being discussed. In this manner the interviewee had the possibility to double-check they had understood the question and if so required, ask for further clarification, e.g. for the meaning of certain words or concepts.

For guaranteeing an all-inclusive outlook on group identification in GVTs, it was deemed important to choose interviewees in a way that represents a comprehensive sample of members from each team and location and that allows for the gaining of different perspectives within each team. This is particularly important as the experiences and hence the interpretations of one team member may completely vary from those of the other members in the same team. Also experiences about group identification within the team may be entirely different depending on the team, so it is also valuable to gather empirical data from different teams instead of just one. To this end, one to three informants from each location of the two teams were selected. As such, originally 6

interviewees were selected from team Europe and 5 from team Asia. Unfortunately during the course of the research, the Swedish location of team Europe was unexpectedly shut down so interviews could not be conducted with the team members of that location. Finally then three members of the Finnish location and two from the Polish location as well as three from Singapore and two from Australia participated in the study in order to ensure an illustrative profile of the representative cases. Apart from one team leader interviewee, the rest of the interviewees have the same position and job description in the team, i.e. a spare part coordinator with the responsibility in coordinating quotations and sales orders. All in all, the interviewees represent a demographically and culturally diverse group of individuals, both males and females from 9 different cultural backgrounds and from ages between 26 and 43. All the spare part coordinators attend to country-specific customers assigned to each of them individually, although in case of absences other team members support (or “back-up”) each other with any pending cases. In this way, each team member works rather individually and is specialised in the sales of particular countries.

All of the interviews were conducted within January and February 2017 and the language used for interviewing was English. A summary of the conducted interviews can be found below in Table 5. In order to safeguard the anonymity of the interview participants the citations in this paper will indicate only the team or team location of the interviewees but no individuating information shall be revealed about the participants.

Table 5 Summary of the conducted interviews

No.	Team	Location	Cultural background	Age	Gender	Experience in a GVT	Interview length
1	Asia	Australia	Australian	45	Male	1 year	00:48:59
2	Asia	Australia	Chinese	38	Female	10 years	01:50:05
3	Asia	Singapore	Singaporean	41	Male	5-6 years	01:40:43
4	Asia	Singapore	Malaysian	31	Female	3 years	01:25:55
5	Asia	Singapore	South-African	37	Female	1 year	01:05:01
6	Europe	Finland	Philippine	35	Female	9 years	01:06:56
7	Europe	Finland	Finnish	34	Male	3-4 years	00:54:32
8	Europe	Poland	Polish	43	Male	3 years	01:22:45
9	Europe	Poland	Polish	26	Female	2 years	01:13:32

4.4 Data analysis

As qualitative research designs tend to result in the generation of complex, rich, and non-standardized data, there is no universally standardized process with which the analysis of qualitative data should be done. However, in order to analyse the collected data comprehensively and systematically, and to produce verifiable conclusions from the analysed data, it is important that both the collection and the analysis of the data follow a properly planned and well-organized process. A distinguishing feature in such more structured analysis processes is the division of the multitude of the collected data into smaller, interrelated and more meaningful segments that can be rearranged and analysed thoroughly and systematically. This will enable the researcher to comprehend and manage the collected data, to integrate related information from various sources, and to identify emerging key themes or patterns that should be explored further. (Saunders et al., 2003, 377-380.)

In this study the data collection and analysis combines elements from both an inductive and a deductive perspective. That is, the collection and analysis of data is preceded by a pre-formulation of theoretical propositions that form the basis for a respective coding system to be used in the analysis of the empirical data. These pre-determined codes are related to, for instance, topics that are expected to be found from the data or that can address larger theoretical perspectives in the research. They are derived from current theoretical literature prior to the data collection rather than from the empirical data itself, although some adjustments can be done during the analysis process if so required by the collected data, e.g. if the findings are somehow unexpected or unusual and of conceptual interest. (Creswell, 2009, 186-187; Eriksson & Kovalainen, 2008, 128-129.) All in all, after forming pre-determined codes, the data analysis moves inductively from specifics towards more general themes that are then associated with the pre-determined codes if possible. By coding data according to chosen themes, the collected information can be organized into meaningful categories with which the researcher is able to analyse the material. However, this method also provides for flexibility in removing irrelevant codes and themes and in adding new ones that emerge from the collected data.

As described in above sections, the data for this research was collected through qualitative, semi-structured interviews conducted through one-on-one meetings via Skype For Business. Prior to the interviews, the preliminary interview themes and questions were formulated in accordance with existing literature on global virtual teams and group identification, and then organized into the operationalization table in Appendix I Operationalisation table. Following the data collection, all of the 9 interviews were transcribed into written form in order to enable the proper analysis, interpretation, and comparison of the responses from the interviewees. All the

transcriptions were edited in order to remove confidential or revealing information about the company, the participants, or their team members. Subsequently, all 9 interview transcripts were prepared for analysis by disaggregating the transcribed material into smaller segments through the previously mentioned process of thematic coding, or categorization. Coding was done by using qualitative data analysis software Nvivo in order to explore the comparable themes and patterns appearing in the interviews and to ensure the systematic and thorough coding of all interview material. The codes used for the analysis were formed on the basis of each theme derived from the theoretical framework in order to form a pre-determined analytical framework against which the analysis was then conducted. Different units of data, such as specific words, sentences, a group of sentences, or complete paragraphs of transcripts were connected to relevant codes enabling thus the re-organisation of the interview transcripts into smaller, interrelated units of data. Figure 4 below depicts the analytical framework that acts as the organizing structure for the transcribed empirical data. The topic of *group identification* thus includes four main themes with 2-4 sub-categories and the topic of *global virtual teams* includes 4 main themes. In contrast with the operationalisation table, the theme of value connotations and team dynamics is split into two for more convenient exploration. All in all, the quantity of themes accounts for the multidimensionality of the research problem. However, because group identification is studied in the context of GVTs, some answers can overlap with both topics as expected – for instance the topic of social networks can overlap with cultural diversity and trust might overlap with e.g. geographical dispersion or virtual communication.



Figure 4 The analytical framework with pre-determined codes

As discussed in the literature review in chapter 3, identification is a complex and a multidimensional phenomenon. Therefore, following the operationalisation choices of Sivunen (2007, 176), group identification in this study is understood as an umbrella concept consisting of different kinds of notions related to identification. When discussing identification with the interviewees, also concepts such as belongingness or commitment to the team, team cohesion, togetherness, and team spirit have been used in order to bring the concept of identification closer to the interviewees and more easily approachable in practice. It is possible that this has by some means affected the interviewees' perceptions when discussing about identification, but at the same time the different terms have been sought to capture the diverse levels and dimensions of identification as thoroughly as possible. This choice of using different terms to reflect identification is also visible in the manner the interview responses have been coded and analysed. All above mentioned terms have been interpreted in each interview as signals of group identification of the team members and as such will be translated into group identification in the following chapters even though the interviewees themselves would have used an alternative term in their replies. This might show in the diversity of terms

used by the interview participants when discussing identification. All in all, however, based on the interviews and the pre-determined analytical framework the construction and sustaining of group identification is explored from four different standpoints:

- 1) Knowledge of membership in a specific group
- 2) Emotional and psychological investment
- 3) Value connotations in the team
- 4) Team dynamics

Finally, after each individual transcript was fully coded, and recurrent topics and issues were identified and aligned with the pre-determined codes, each category was then explored and analysed to draw conclusions of the nature and roles of different themes and their associations to the research questions. Additionally, some well demonstrative quotes were extracted from the interviews and provided from each category in order to provide support for the analysis.

4.5 Trustworthiness of the research

In contrast with quantitative methods where evaluation of trustworthiness is related specifically to the *measuring* in the study and the reliability and validity of the research, qualitative research is obliged to take a different path (Eskola & Suoranta, 1998, 211). This is because qualitative research does not in itself concentrate on measuring the studied phenomenon but rather on understanding the research problem in its natural context, as explained in the previous sections. Lincoln and Guba (1985, 300-323) discuss four features as means to assess the trustworthiness of qualitative research: (1) credibility, (2) transferability, (3) dependability, and (4) confirmability which act as equivalents for the traditional terms used particularly in quantitative research – internal validity, external validity, reliability, and objectivity.

Credibility is used to substitute for the conventional term of “internal validity”. Credibility is associated with the questions of how well do the findings of a study correspond to reality, how well do they capture the studied phenomenon, and how well does the gathered empirical data match with the researcher’s arguments and conclusions, i.e. are the findings credible given the presented data (Eriksson & Kovalainen, 2008, 294; Merriam, 2014, 213). One way of ensuring credibility of the findings and the interpretations is triangulation, i.e. converging information from multiple sources, methods, investigators, and theories. The use of multiple sources can occur for instance through comparison and cross-checking of data, or collecting interview data from various individuals with different points-of-view (Creswell, 2009, 191; Lincoln & Guba, 1985, 305; Merriam, 2014, 216.) To this end, the credibility of

this study can be argued to gain strength from the fact that two different virtual teams were used together with several interviews from each team and each of the four locations in order to allow for the diversity of perspectives. Moreover, the interviewees represented a demographically and culturally diverse group of individuals, both males and females from 9 different cultural backgrounds and from ages between 26 and 43. The quantity and differing characteristics and backgrounds of the interviewees as described above produced data that represents rather adequately the relevant topics under study and also contribute to the representativeness of the sample.

Second factor influencing the trustworthiness of research is transferability which is very different from the establishment of external validity in quantitative research, i.e. the extent to which research findings can be generalized to particular contexts and across different types of contexts and time frames (Ghauri & Grønhaug, 2002, 72; Lincoln & Guba, 1985, 316). Transferability is related to the possibility of other researchers to use the presentation and descriptions of results and how they were achieved to evaluate whether the findings can be applied from one research context to another (Eriksson & Kovalainen, 2008, 181). The quality of transferability is largely dependent on the degree of similarity between the context used in the original study and the context where inquiry should be transferred to and hence it cannot be adequately evaluated by the author alone, but rather should be evaluated by those interested in making the transfer (Lincoln & Guba, 1985, 316). According to Lincoln and Guba (1985, 316) the only means of strengthening transferability by the author is to aim at providing detailed and comprehensive descriptions of the collected data and the process of how it was collected which is also something that has been the objective in this study. Moreover, the aim of this thesis has not been to produce universal generalizations but rather to examine the topic from the perspective of the case teams and hence to provide in-depth insight into the studied phenomenon and to further the current knowledge of group identification in the GVT context. It is noteworthy that the principal dynamics of group identification in global virtual teams is a complex phenomenon which originates, among many other things, from the individual team members, the team setting, and the environment in which the global virtual teams operate. The analysis might thus require some adaptation in team contexts involving different individuals from varying backgrounds and with differing mind-sets.

Third factor of trustworthiness, i.e. dependability, refers to the researcher's responsibility to demonstrate that the study has been conducted by following a logical, traceable and well documented research process (Eriksson & Kovalainen, 2008, 294). According to Lincoln and Guba (1985, 316) there can be no credibility without dependability and hence by demonstrating the former, one can establish the latter. However, this is not in itself sufficient, but dependability needs to be established in other ways as well. As dependability can often occur simultaneously with

confirmability, one way to assess it is to do it together with the evaluation of this fourth dimension of trustworthiness of research (Lincoln & Guba, 1985, 318.). Confirmability is concerned with the neutrality of a study and with linking findings and interpretations to the data in ways that can be easily understood by the reader and that are not affected by the researcher's personal biases, interests or perspectives (Eriksson & Kovalainen, 2008, 294; Lincoln & Guba, 1985, 290-300; 318-324). The dependability of this study is supported by the operationalization table that provides a clear plan for the research process starting from the review of the theoretical framework for the studied phenomenon, moving on to the themes discussed in the interviews used for data collection and finally by connecting them to individual interview questions. Furthermore, the research process has been clearly elaborated in the above sections of this chapter and all steps taken within the empirical portion of this study have been well documented and presented above. This also contributes to the confirmability of this research by making the research process more transparent to the reader and hence more objective. However, although biases and personal perspectives of the researcher have especially been endeavoured to avoid throughout the data analysis, some subjectivity might possibly be seen in the interpretations of the data due to the researcher's former work experience in somewhat comparable global virtual teams.

5 GROUP IDENTIFICATION IN GLOBAL VIRTUAL TEAMS

This chapter introduces the findings of the empirical data collected for this study. The objective is to explore group identification in global virtual teams that are characterized by geographical dispersion, cultural diversity, and reliance on information and communication technology. The research problem on which this study is based on is *how is group identification constructed and sustained in global virtual teams*. It is approached through the following sub-objectives in order to provide further insight into the topic under investigation:

- How is group identification experienced in a global virtual team?
- How does geographical dispersion reflect on group identification?
- How does virtual interaction reflect on group identification?
- How does cultural diversity reflect on group identification?

As the interviews and the analysis in this study follow the themed structure described in the operationalisation table and in chapter 4.4, the upcoming results are also divided into two sub-chapters in accordance with the analytical framework.

5.1 Group identification

This section focuses on the first sub-objective of the study, i.e. how is group identification experienced in a global virtual team. Based on the pre-defined analytical framework and the responses from the interviewees, it will be explored in the following sections from four different standpoints:

- 1) Membership in a specific group
- 2) Emotional and psychological investment
- 3) Value connotations in the team
- 4) Team dynamics

The first section refers to the cognitive component of identification described in chapter 3.2. It refers to the team member's knowledge of membership in a specific team, perceptions of similarities between the team member and the team, and feelings of belongingness to the team. Emotional and psychological investment relate to the team member's evaluative, affective and behavioural components of identification. Together, these play an important role in how group identification is constructed and how it will influence on the behavioural element of group identification. Finally, the different value connotations present in the team as well as team dynamics will be explored as they are matters that can assist in sustaining group identification within the team.

5.1.1 *Membership in a specific group*

Knowledge of membership in a specific team is related to the cognitive component of identification. It refers to the process of self-categorization by which an individual assigns themselves to a specific category such as the team they work in. Consequently, the individual accepts that he or she is being seen as the member of that group. What is noteworthy is that this acceptance relates only to the knowledge of being part of a group and does not give any notion about whether this fact is important or not for the individual's self-concept. (van Dick, 2001.) A team member's knowledge of membership in a specific group can be seen especially in the way a team member defines and describes their team and their own role within the team.

Based on the empirical data gathered, the respondents from both teams – team Europe and team Asia – define their teams chiefly in terms of the team's geographical locations, the number of team members in each location, and the work role which is considered similar for all team members, i.e. being coordinators and serving the customer. A well demonstrative example is provided by participant 1 who defines his team as follows:

It's a team that comprises of 20 to 22 people. We're three of us sitting in Sydney office and the rest of the team is sitting in Singapore. So we all handle our own list of customers and basically we all have a similar set of responsibilities of how we handle the customers. (Participant 1, Team Asia)

Even though both teams are geographically split into different locations, colleagues in other locations are also assumed as part of the whole team. Several of the interviewees also report that even though team members work rather independently from each other, they work in unison to fulfil common goals of serving the customer and meeting the team's key performance indicators (KPIs). In fact, customer-focus, helping others, open discussions between team members, sharing of information and knowledge within the team, and being in a constant learning mode are some of the key topics team members articulated when describing their teams and team members. In one interview the team is experienced so strongly that the interviewee describes it through a metaphor, capturing thus the team features of focusing on the customer, doing together, and learning on a continuous basis:

Our team, actually, if I can use one word to describe, actually I can describe my team as a warrior. It's like every day we come here and we

do a firefighting kind [of a] job. We have the customer, we focus, we aim for our target and then we grow together. (Participant 4, team Asia)

Customer-focus can also be seen as something that differentiates the team from other teams in the company. According to participant 9, her team is “*definitely more focused on customers and we more feel the responsibility because we have a direct contact with the customer*” whereas other departments who are not in direct contact with the customers tend to focus on the cases they are handling rather than the customers behind them.

The results in this study partly contradict the findings from the study of Sivunen (2007) according to which team characterizations given by team members in virtual teams do not follow the traditional definition of teams. According to the traditional definition teams have clear goals and their members are jointly responsible for the team’s performance. This is also something that comes up in the replies of the interviewees. Instead, Sivunen (2007, 172) finds that in the context of virtual teams the definition is more lax. Teams are seen as (1) a work relationship defined through the team leader, (2) an organisational design for a group of people, or as (3) a project in which employees work together. That is to say, common goals, joint responsibility and interaction between team members are not as essential for team membership as in traditional teams. Then again, consistently with Sivunen’s definition, some of the interview replies in this current study demonstrate how the definition of a team can to some extent be more lenient for virtual teams than for traditional teams. For instance, participant 7 from team Europe defines his virtual team loosely as “*colleagues doing the same work*” who “*work together to get the good results*” but that at the same time “*everyone works really independently and doesn't need that much supervision*”. This conforms rather well to the second team definition from Sivunen, i.e. team being simply an organisational design for a group of people.

Consequently, on the one hand both of the case teams have clear goals that are well known by the team members, thus aligning the definition of the team with the traditional notion, but on the other hand, even though team members help each other and provide support for each other in order to ensure that those goals are achieved, team members still work rather independently in a group of individuals taking care of similar tasks. What is important, however, is that the team members experience a certain degree of shared context within their teams which is necessary to create and sustain a shared team identity (Weimann et al. 2010). This context arises from the team characteristics, ways of working, and team goals and values.

Similarity of defining attributes. Another dimension of the cognitive component of group identification can be seen in the way team members discuss similarities perceived between themselves and the team. As discussed earlier in the theoretical framework,

group identification is constructed in circumstances where a team member feels that he or she shares similar self-defining attributes as can be seen in the team. This perception of similarity relates not only to the people in the group, but also to the activities of the group as well as to the preferences of an individual. Naturally, the degree of perceived similarities varies in regards to work-group composition. This needs to be taken into consideration before making any conclusions about the influence of the virtual team environment on perceived similarities. (Kim et al., 2010; van Knippenberg & van Schie, 2000.)

The ways in which members of both virtual teams describe their teams and the team's working environment correspond to some extent to the ways in which team members personally describe themselves and their values. This is to say, the complex and fast-paced work environment is matched with qualities such as being organized and enjoying learning new things and developing oneself. Yet, when interviewees were asked about what kind of attributes they have personally and how well do they match with those visible in their team, it was noticeable that their self-defining similarities are mainly related to the professional self rather than to the personal self. In several cases, interviewees referred to their self-defining attributes or values such as being a fast learner, detail-oriented and organized, hard-working, persistent, ambitious for learning and developing oneself, being humble with customers, and satisfying the customer. Although these reflect similar values and preferences in relation to work, personal interests or activities are somewhat less observable. However, this does not signify that such similarities do not exist, just that they are rather tacit and less visible in the work environment and thus implied in a more subtle way in the day-to-day discourse between the team members. For instance, when discussion revolves around something else than work, common subjects are found from topics such as sports, shopping, current local events or news, or hobbies. Even virtual team members in different locations can share similarities as is shown by participant 9 in team Europe's Polish location:

We together with [two team members in Finland] have the same hobby. We have motorbikes, so... We spent a lot of time driving and from time to time we have a chat about where we are planning to go or where we were last season and how was it, what about our motorcycles, so yeah...
(Participant 9, team Europe)

Additionally, where significant self-defining similarities are absent from the interviews, team members refer to the lack of any significant differences that could be experienced within the teams. Participant 2 from team Asia considers important differences in the following manner: *"I don't think there's anything (...) very different, because for all our team members, (...) they all work very hard and... Also they feel*

responsible with what they are doing.” Similarly, participant 9 from team Europe states that *“I am very happy with my team and I couldn't even remember if we have [had] any arguments or someone was very unhappy. So I think yeah, it is quite, really, really good team.”* In some cases, when differences between team members do grow too big, for instance because of cultural diversity, similarities are sought from outside one’s immediate location. An example is provided by participant 5 from team Asia:

I don't really have a lot in common with the team (...) that I work with locally. Because most of them are obviously from Asia and I'm from the West... (...) What I have, actually, more in common with one colleague of mine in Australia (...) We're very similar cause (s)he's also introvert and soft-spoken, so (...) we tend to relate to each other more than I do with the rest of the team actually. (Participant 5, team Asia)

All in all, above examples from participants 9 and 5 from situations where similarities are found even between members of different locations provides a point of contradiction to previous literature. For example Gonzales and Chakraborty (2012) state that identification is shaped namely by proximal organisational members, i.e. people that are close and similar to the individual and who they interact the most with. In contrast, it seems that in some cases identification is influenced also by more distant members of the team if similarities are experienced strongly enough and opportunities for regular interaction are present.

In conclusion, it appears that the geographically dispersed and virtual nature of the teams in addition to its diversity in regards to personalities and cultural backgrounds provide team members with a certain degree of flexibility in building social context and finding similarities within the team. This flexibility is important in order to substitute for the scarcity of observable and distinct characteristics to which team members can relate to and to accommodate for possible differences in the self-defining characteristics of certain team members. Participant 4 from team Asia expressively concludes in regards to the diversity in team members’ values and personalities:

There is, we have different types of personalities in the team. (...) Handling a team and being in a team, it's like you are being in a zoo. There are so many types of animals with different personalities and we just have to find a balance. (Participant 4, team Asia)

What is important to note, however, is that both teams have stable membership and regular team meetings via virtual methods. Also, team Europe has had one face-to-face meeting a year prior to these interviews. These are likely factors to contribute to the

identification being stronger than in global virtual teams with more flexible membership.

Belongingness to the team. Group identification with the team follows from a cognitive perception of the team as team members understand they are members of a specific group and perceive similar self-defining characteristics with the team. However, as previously stated, simply being aware of a membership in a specific group and perceiving similarities to the group are not enough for identification to occur. The importance of the membership is demonstrated predominantly by the affective component of identification, i.e. the emotional attachment and assignment of positive feelings to the group (van Dick, 2001). This attachment to the group can be seen for instance in the way team members express feelings of belongingness to the team. Participant 3 from team Asia, for example, describes his team as “*one big, happy family*” and participant 9 tells how due to the stressful nature of their job “*it is really helpful when you know that every day you see the people you like and you can talk with them and feel their support*”. All in all, team members express a positive connection to the team and majority of responses expressed strong feelings of belongingness to the team. Some uncertainty can take place due to the geographical dispersion of the team, because it is more difficult to know what is going on in the other team in another location (Participant 1, team Asia). This can potentially undermine belongingness to the team. Another threat comes from subgroups within the team, e.g. if a member represents a cultural minority within the larger group or if certain members have an area of specialty which ties them to their own sub-unit within the team. However, these issues can be minimized by ensuring a sufficient level of interaction between team members, and for example by the team leader’s conscious efforts to assure team members of their inclusion. An example is discussed by participant 1 in team Asia:

[The manager] mentioned whatever would happen in Singapore, [they] said [they] gotta be also be thinking of the team in Sydney. So whatever changes would be done in Singapore, would have to be done in Sydney, ‘cause we’re part of the team as well. So it’s not making us feel left out.
(Participant 1, team Asia)

Figure 5 below summarises some of the issues that are experienced by the team members as either strengthening or weakening the feelings of belongingness to the team. The white circles refer to issues that might undermine feelings of belongingness whereas the grey circles refer to ways of strengthening belongingness.

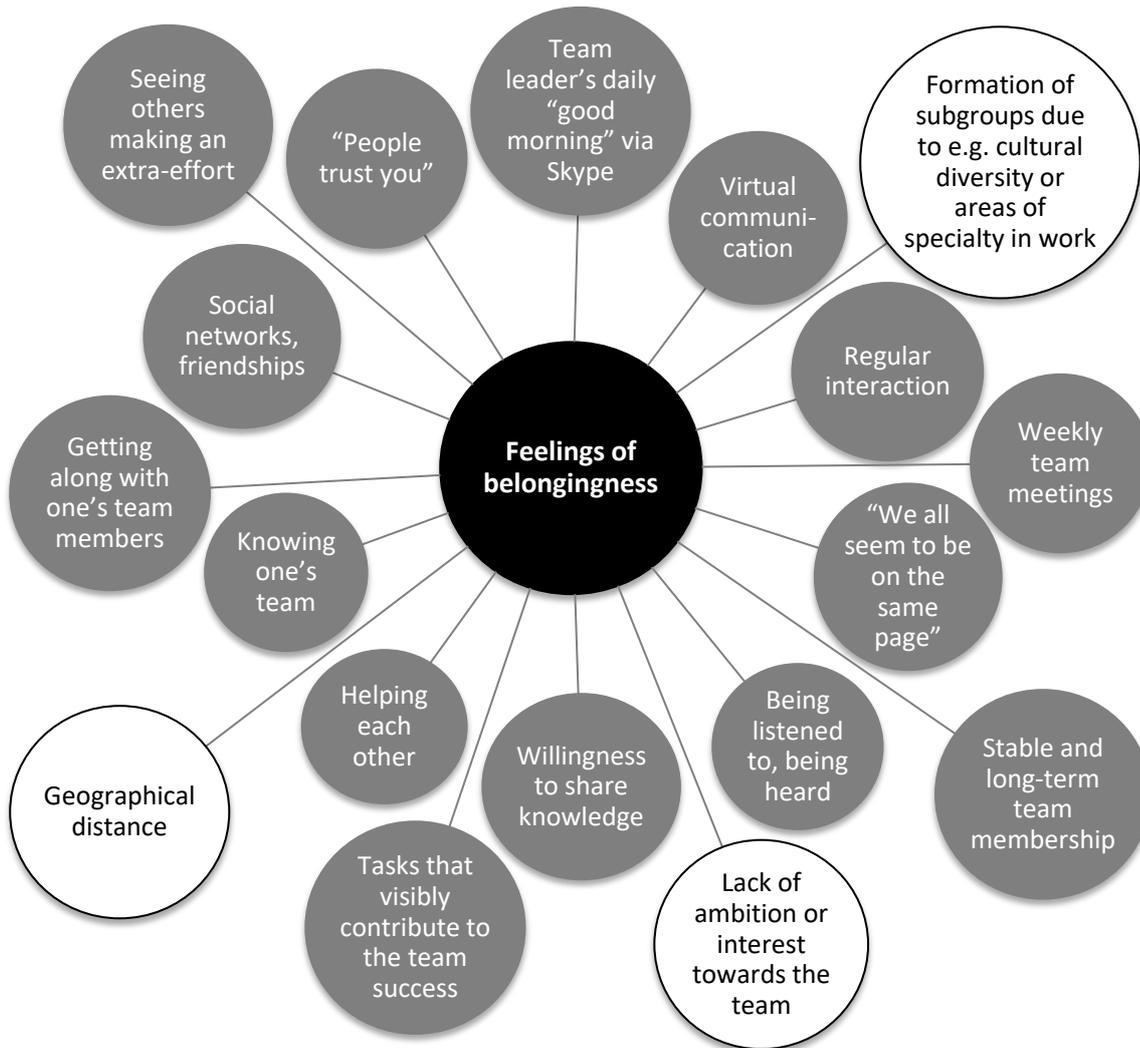


Figure 5 Elements affecting feelings of belongingness to the team

Aspects that affect feelings of belongingness and thus identification with the team strongly indicate that in addition to the cognitive component of identification team members also need intra-team interaction for identification to occur. This is in line with previous literature that suggests that cognitive dimensions of identification need to be coupled with affective dimensions of identification. As Henry (1999) suggests, similarity between the individual and the group yields interpersonal attraction, which consequently results in an interacting, interdependent group. Interaction in turn strengthens self-identification as a member, and hence these three elements – similarity, interpersonal attraction, and interaction – act together to stimulate group identification.

All in all, by defining and describing their teams and discussing similarities with and belongingness to the team, the interviewees convey what Ashforth et al. (2008) term the core of identity and content of identity (cf. Figure 3, p. 34). The core consists of **self-definition** (seeing a group's defining essence as self-defining – "I *am* a member of this team"), **importance** ("I *value* this team"), and **affect** ("I *feel* positively about this

team”). The importance and affect are further developed through the evaluative and affective components of identification, which are explored in the following sub-chapter about emotional and psychological investment of team members.

5.1.2 Emotional and psychological investment

Emotional and psychological investments to the team are reflected in the team members’ feelings about the team and in their satisfaction with the team. Accordingly, group identification is constructed and expressed in the form of commitment to the team as well as team cohesion, togetherness, and team spirit. These investments relate to the evaluative and affective components of identification, i.e. to the value and emotional significance team members attach to their group, as well as to the behavioural element which stimulates the individual to act in a way that is supportive of the group. Individuals perceive themselves as members of a team, and thus embrace a psychological connection with its fate and experience its successes and failures as their own. (Kachanoff et al., 2016; Riordan & Weatherly, 1999; Van Dick et al., 2004; van Knippenberg & van Schie, 2000.) Identification impacts team performance on numerous ways, such as in terms of co-operation, turnover, job satisfaction, the value placed on the team’s welfare, actions taken in support of the group, and commitment to the team and its goals (Fiol & O’Connor, 2005; Solansky, 2011; van Knippenberg & van Schie, 2000). It is thus worthwhile to explore what is behind matters such as satisfaction and commitment in order to retrace some of the things that help in constructing and sustaining group identification and in understanding how group members experience identification in global virtual teams.

Feelings about the team and satisfaction in the team. According to the collected data, team members carry mainly positive feelings about their team. For instance, participant 4 from team Asia describes her team as “*quite a good team, quite full of spirit, and motivated. (...) I would say this team is full of positive inspiration. And... we are like in a family*”. Similarly, participant 8 from team Europe refers to his team as “*a really good team with motivated people and friendly colleagues*”. Topics such as an open and friendly atmosphere, experienced, hard-working, and well-informed team members, sharing of knowledge, and helping and supporting each other were in several interviews mentioned as the best aspects of the team. Similarly, satisfaction with the team seems to be on a high level when discussing team members’ own work, customers, team members, and other colleagues. Work is described as providing variety and challenges, and yet also some routine and predictability. Also the open, helpful, and “fair” nature of communication within the team are experienced as sources of satisfaction. Additionally, members of team Europe highlight satisfaction with the

accessibility of managers and the more considerate style of management which the Polish team members see as a Nordic approach to leadership.

Some challenges to the team work are experienced mostly due to the geographical distance between team members. Interviewees found that important team aspects of providing support, having daily interaction, and getting to know one's colleagues properly are more difficult with distant team members. Correspondingly, it is most often cited as one of the sources of dissatisfaction with the team. Both teams also occasionally experience that high workload, lack of activity in virtual meetings, and the dynamic work environment in which team members are expected to be constantly learning new things and adapting to new ways of working set some challenges to the team work. Workload is experienced as disrupting to the satisfaction with the team namely because it prevents team members from taking the time to help and support one's team members proactively. Moreover, a couple of the interviewees from team Europe mention the formation of subgroups in certain locations and the lack of face to face meetings as a hindrance to forming stronger relationships with distant team members. Two members in team Asia point out that some team members are not as open with their issues and this can cause some dissatisfaction when problems arise. Regardless of the few challenges in the team, team members nonetheless express that they are not facing any major disturbances to their team work, but operate rather smoothly. Team members experience that overall they are satisfied with their team, team members, and their work in the team.

Commitment is a construct that is often confused with identification. Regardless of their similarities, commitment in itself is conceptually distinct from identification. However, commitment occurs often together with group identification, and as such it can be used in exploring how group identification is constructed in global virtual teams through commitment, among many others. According to the interview data, there are many ways in which commitment is understood by the team members. One of the leading explanations given refers to commitment as taking responsibility, or feeling or being responsible for one's actions and one's work. It is described as giving one's best at all times, putting in extra-time and effort even without being asked to, and to sharing one's experience and helping others for enabling commitment. As participant 2 describes it:

We do have, like, [a] 24/7-duty person (...) after working hours, but for all my team members, if they have any urgencies for their customer, they will actually do it by themselves. Yeah. This is the way they're showing their commitment because they feel responsible for their customer.
(Participant 2, team Asia)

Commitment is also related to turnover in the team. Both teams reported to have had issues with turnover, but that enforcing commitment through stronger personal relationships and satisfaction with the work and the team has helped in cementing team membership. Participant 7's reply to the question about what is commitment provides a good example of this:

That people are staying on board in this team, even when we have had really big workloads and, it used to be that we had quite many that left the team (...) but at the moment I think that many have... I would believe everyone really enjoys being in this team and are committed in that way.
(Participant 7, team Europe)

Several interviewees cite affection for one's team members, the team, and the work as factors stimulating commitment. However, even though the commitment of team members is perceived to be on a high level, it is noteworthy that in both teams commitment is often expressed more in connection to the work than the team. Naturally, by showing commitment to one's work, team members tend to also show commitment to the team because the team shares common goals and results. For some, on the other hand, the clearly team-related commitment, such as helping others and sharing experience in order to make the whole team succeed together, might be more neglected. Participant 4 puts it so that:

Other team members (...) They are only satisfied that this is only a job. And (...) a place where (...) to make money. So their commitment is only based on the target set by the company and also... The job (...) to be done on time. (Participant 4, team Asia)

Even though the team member feels responsible for their work, the level of commitment stays more on the level that is expected to fulfil one's responsibilities and nothing more. Fulfilling one's responsibilities is enough and extra-input for the team is not regarded as essential. On the other hand, commitment might be on a high level even though not directed towards the team per se. Participant 8 from team Europe attributes this to the independent way of working in the team:

Remote teams, it's a bit different than the normal, like, in one room when you sit and you have maybe the same customers. But when you have different customers, also you are a bit in your own separate world, because you know your customer and maybe your first back up (...) But then, you know, with rest of the colleagues, you don't have (...) maybe the

same topics... (...) That's why, you know, I think we are more committed to the job itself. (Participant 8, team Europe)

Commitment as such originates more from the work done individually rather than from the feelings and satisfaction towards the team. When commitment is expressed more towards one's personal responsibilities, identification with the team might appear to be more limited. Reasons for this can be found from the second component of identification, i.e. the content of identity. The content attributes are more independent than the elements in the core of identity, meaning that identification does not inevitably cover each and every element. If some attributes are not clearly articulated or well developed, or they are implicit, conflicted, or adopted but not enacted, identification may result in the lack of acceptance of certain attributes. (Ashforth et al., 2008, 330.) Particularly in team Europe it could be that team-related values are not enacted strongly enough in the team due to the individual way of working and hence identification with the team is for some team members weaker. This is supported by participant 7's reply to the question of what makes him committed to the team:

I really enjoy the tasks I have here and [have been] able to work really freely. To please the customers with their requests and orders and communications, so... I think it works really well and I enjoy it. I don't plan to leave, [laughter] that's commitment I think. (Participant 7, team Europe)

Nonetheless, commitment in general, whether related to work or also to the team, is on a rather high level according to the majority of the interviewees. Team members express positive feelings towards their team and team members, they convey a high level of satisfaction with the team, and the commitment to the team according to the interviewees is demonstrated through team dynamics and the daily work. In addition to these, the extent of group identification is also observable in team members' feelings of team cohesion, togetherness, and team spirit.

Team cohesion, togetherness and team spirit. One example of togetherness shows in team Asia where certain team members have common hobbies such as yoga and running that are done together after work. In addition, team cohesion is in many instances said to show for example in the team's ability to handle occasional conflicts. Participant 5 states that "*we all get along well with each other. There are clashes here and there but we sort it out quickly and we talk about it, we air it normally out*". In both teams helping each other out and solving problems together is stated as an important signal of team spirit. Participant 3 tells how "*workplace support is a way to show team spirit, team cohesion. Doing things without asking, backing up and helping someone*

without being asked [to], that's team spirit actually". In team Europe, participants from both locations state that the team spirit is constructed over the years as people get to know each other when working together for a long time. However, major disturbances to team cohesion and team spirit are in both teams noticed due to the geographical dispersion of team members. Participant 5 was asked how she would describe the team cohesion, the team togetherness, or the team spirit in the team and her reply conveys what was present in majority of the interviews:

That's a bit hard to describe to you, because (...) we all have our different groups in the sense that we work on our own customer accounts in our group. (...) we're not working together in the sense, the groups, you know, but (...) we know each other fairly well... (...) The thing is, we don't really have time to (...) spend time with one another and get to know one another more... Because we are (...) working in such a fast paced environment. So... I mean it's there, the team cohesion is there, for the most part I would say. Apart from the fact that we're so busy, we can't really, you know, mingle too much. (Participant 5, team Asia)

All in all, feelings of togetherness and hence identification with the group might be somewhat downplayed in circumstances where the team is lacking consistent and continual team work. In such cases, communication is often revolving around work only and opportunities to do things together and build social relationships are scarce. This is in line with previous literature. For instance Weber and Kim (2015) discuss how geographically dispersed teams are often subject to lack of interpersonal interactions and personal contact that otherwise can help to stimulate social bonding within team members. This in turn can limit spontaneous communication and the extent of peer engagement, thus impacting on team cohesion and trust building. The influence that global virtual teams can have on group identification is further elaborated in chapter 5.2.

5.1.3 Value connotations in the team

Different value connotations in the team together with team dynamics are areas that can assist in sustaining group identification within a team. Value connotations are reflected for instance in the ways in which members of a team perceive organisational support, organisational justice, and internal respect. These will be discussed in the below section.

Perceived organisational support refers to the way team members feel their group treats them, values their contributions and cares for their wellbeing. It is perceived as assurance of the availability of support whenever it is required for dealing with

demanding situations and for performing one's work effectively. (Rhoades & Eisenberger, 2002.) When team members perceive high levels of social support from their co-workers and superiors, they are more likely to feel central, included, valued, and respected in their team. Through the principle of reciprocity, they then tend to become more motivated to respond with stronger identification. (He et al., 2014; Wiesenfeld et al., 2001.)

According to the empirical data, workplace support is experienced quite strongly in the team and stems from many levels. Each team member has a designated back up person who takes care of their workload in their absence. Team members also support each other in situations where they perceive that someone's workload is getting too high or if anyone requires help in solving some problems or lacks necessary knowledge to deal with them. Team members are not shy to ask for help and they are not required to ask for it twice. This consistent, always on-going workplace support and knowledge-sharing builds up trust within the team and several of the interviewees state that they can count on each other and trust that their work is properly handled in case they are absent from work. Participant 8 provides an example of one of the many ways in which support is shown in the team:

It's important that you have somebody who you can count on. Like yesterday, for example. (...) I was about to leave and it was late in the afternoon and most of the colleagues were out already, but one colleague in Finland stayed. (...) And, yeah... I needed help with one thing and she helped me. She spent some time, even if it was late, so... I know that if, maybe other colleagues (...) had been [there] at the same time, I would have been, you know, supported by them. (Participant 8, team Europe)

Each team also has a key user to help with system-related issues and to provide trainings for the team. The key user can be approached from other locations through Skype and trainings are organised for example via video conferences (participant 2, team Asia). In addition to the key user, team members are able to rely on the support from their team leaders and line managers who are described as understanding and easily available. Team members can approach their superiors for instance when they experience their workload is getting too high, or to receive consultation and to make decisions the team members are not able to make themselves. Workplace support is not limited to work-related issues but team members occasionally discuss personal matters as well and receive support in case they are going through complications in their private life. An example of this is provided by a participant in team Asia:

There is fairly good support, I would say, (...) Manager says "my door is always open, you can come in", the team leader the same. (...) If you're not feeling well, like (...) last year [I had a personal situation in my private life] and I went to my boss and I spoke to [her/him] about it and it felt so good. (S)he was quite sympathetic and obviously (s)he allowed me to take time off if needed. I was quite grateful for the support (s)he showed during that time for me. (Participant 5, team Asia)

All in all, the strong support coming from several levels within the team stimulates trust between the team members and signals team members that their wellbeing is being cared for. It contributes to team members' feelings of assurity in the team and to the level of respect experienced by the team members. Through the principle of reciprocity, this positive treatment faced by the team members is continued in their own treatment of others, i.e. the support goes both ways and is reinforced in daily interaction. By engaging collectively in providing workplace support for all members of the team, team members are likely to strengthen their identification with the team.

Perceived organisational justice. In addition to perceived organisational support, individuals who identify with their team are influenced by the degree to which they perceive to be treated fairly in their team. This is because, similarly to the effects of perceived organisational support, employees will feel valued and respected by their colleagues. The perceived fairness follows from both organisational procedures, i.e. perceived fairness of the formal decision-making procedures, and from supervisor behaviour, i.e. the perceived fairness of interpersonal treatment received from the supervisor. Also the perceived fairness of the outcomes and the allocation of resources in the workplace impacts on the overall fairness perceived by team members. (Olkkonen & Lipponen, 2006.)

Based on the interview data, team members feel that they are treated mostly fairly by their team members and their superiors. Minor feelings of unfairness were in some occasions related to the distribution of workload but this is compensated for by the presence of workplace support systems discussed in previous sections (Participant 3, Participant 4, team Asia). In regards to interactional justice, i.e. supervisor behaviour, several team members from both case teams mention how they feel that they are being treated equally and in the same way. Participant 3 who is one of the team leaders in team Asia, explicitly states that "*to look as being fair is one of my important things that I need to work on*". According to theory, supervisor-focused perceptions of fairness in particular are associated with work-unit identification (Olkkonen & Lipponen, 2006). It can thus be assumed that the perceived fairness within the team contributes to the team members' group identification.

In regards to decision-making, both teams seem to have a clear system in place. Several of the interviewees report how bigger decisions, such as those related to the system, the way of working, or the team are most often done by the management. However, in number of occasions team members also mention that they have the opportunity to influence on the decision-making process. Employees are to some extent consulted about the decisions to be made and they are able to voice up and discuss issues together, or ask for solutions or decisions to be made. Participant 5 describes the decision-making as follows:

Decisions are usually obviously made by team leaders and the manager (...). So, when they say yay, we can't say nay. [Laughter] (...) Sometimes we are being consulted, obviously, (...) meetings are held and the manager would ask for our input if (s)he feels it's necessary, which we appreciate. (Participant 5, team Asia)

On the other hand, smaller decisions such as those related directly to someone's daily work can be made individually or after having discussed it with at least one more person, such as a team member, team leader, or account manager. Participant 6 describes the daily work related decision-making as follows:

If there are like small decisions, we can make it ourselves. I think that's the good thing also with our team. We can easily decide on our own, you know, that fits to us and our own authority. (...) It's like you're "empowered" to make your own decisions. And if it's quite tricky or you need help, then your supervisor would assist you. (Participant 6, team Europe)

By engaging team members in the decision-making processes and by providing opportunities to influence one's own work, individuals are communicated that they are respected members of the team and that they can take pride from their team membership. This according to theory should increase the team members' identification with the group (Olkkonen & Lipponen, 2006).

Perceived internal respect. Similarly to perceived organisational support and organisational justice, perceived internal respect conveys a message that team members are valued members of a collective (Fuller et al., 2006). Due to the positive emotional experiences triggered by personal recognition, such as respect and appreciation from others, individuals become more susceptible to group identification (Gertsen & Zølner, 2014).

Team members from both teams emphasise the importance of mutual respect in the team. Respect is seen in the way team members communicate and work with each other, acknowledge others and their achievements, and pay attention to others and what they are saying. For instance, participant 7 from team Europe relates how respect shows by *“trying to help each other and be polite and... also professional when it’s needed”*. For mutual respect to exist, it is also vital that employees feel they can openly and safely share and discuss any issues causing disturbances in the team or the way of working (participant 2, team Asia). This also shows in the way a team tolerates occasional conflicts: *“of course sometimes there are disagreements and arguments, but it’s under control and there is no disrespect between colleagues”* (Participant 5, team Asia). All in all, respect shows rather discreetly in the daily interaction between team members, but its presence and importance is recognised by all team members.

Another way of showing and perceiving respect, particularly from one’s superiors, is through recognition and rewards. In a number of interviews from both teams this is mentioned as an issue that has been raised in the team meetings to be one of the points of improvement. Participant 5 accounts for the rewarding of people in team Asia as follows:

That's also been something that's been a topic of discussion recently. After the MyVoice survey that was done, and the results came, and that's always a hot topic, how are people rewarded. And my managers actually made a point now to... To acknowledge and reward those that are doing a good job in the team. (Participant 5, team Asia)

On the other hand, one issue seems to be complicating the recognition of personal achievements at work and this is the independent way of working of team members. Participant 6 from team Europe states that *“it’s hard to make an assessment [of] who does really a good job because everyone has its own different work”*. On the one hand independence is experienced as an important source of satisfaction in one’s work, but on the other hand it simultaneously makes it difficult for others to appreciate the personal successes of a team member if they are not involved in their daily work. Instead any problems with work cases do get more attention in the team. This is because often the supervisor is required to get involved in solving them or because they are shared with the team for the purpose of learning together:

It's quite difficult (...) to say good job done (...) because the team leader is never involved if something is a good job, it's only if there are problems. Of course you can solve the problem with a good job, but with these kind of work tasks it's very difficult to reward people if they're done

a good job because it goes quite un-noted. It's always or only when some things have gone wrong that it's mentioned more. (Participant 7, team Europe)

However, some recognition comes from time to time in the form of feedback such as comments via e-mail from account managers or directly from customers. Moreover, because team members are handling similar work tasks, i.e. coordinating sales orders and quotations, they are to a certain extent able to understand what others are going through in their daily work which contributes to the level of respect regardless of the lack of verbalized recognition. Respect is thus present in the interactions of local team members albeit rather tacitly. By contrast, empirical data did not display the role of respect in regards to geographically distributed team members, but instead assessments of perceived respect were discussed mainly in connection to proximal team members. This might be explained by the degree of physical distance to team members which shows in the low level of interpersonal interaction between dispersed team members and makes it even more difficult to overcome the obstacles to providing recognition set by the independent way of working.

5.1.4 Team dynamics

Team dynamics are shaped through areas such as trust, social networks, collaboration, and communication in the team. Together these affect team dynamics that are essential in sustaining group identification.

Trust is related to the expectations, assumptions, or beliefs that an individual holds in regards to the probability of someone behaving in a way that is advantageous and valuable to that individual's interests (Raghuram, 2011). Based on the study by Hakonen and Lipponen (2009) both trust and identification are essential for high GVT effectiveness. Germain (2011) alternatively implies that trust signals identification because affect-based trust is formed between individuals through close emotional bonds and feelings of identification. Moreover, Fay and Kline (2012) provided findings according to which co-worker relationship quality shapes identification through interpersonal trust and affection.

In both of the case teams the role of trust is considered essential for working together with someone but trust is referred to mainly in connection with handling work. For instance, participant 7 states that *“if I ask a colleague to take care of something, I do trust that they take care of it, so... That's pretty much the only example I can think of”*. In two occasions a participant from each case team discussed trust in regards to sharing information confidentially but in both cases it was mentioned that trust is lacking when

confiding with someone. Moreover, in some cases it is difficult to discuss trust on behalf of the whole team because of lack of interaction with distant team members. For instance, participant 2 states when asked about the role of trust within the team that *“actually I can’t tell, because work-wise, I only deal with all my colleagues within the same region”*. However, similar to participant 7, several other interviewees conveyed a high level of trust in someone handling their work in their absence or helping with someone’s work if so asked. Participant 6 states that *“I think people are trustworthy in my team. If I say something, I could trust them. When they say they promise something, I could trust their promises”*. Main aspects that help maintain trust within the team are involved with transparency in the team for instance in regards to information sharing or decision-making, well-functioning knowledge-sharing, well organized nature of work, and shared goals such as the team’s key performance indicators.

All in all, although the level of trust in regards to handling work is considered high by the team members and the role of it is deemed important for the functioning of the team, trust appears in the team as something rather impersonal. The strong connections that interviewees hold in regards to trust and work, instead of trust and relationships are somewhat consistent with existing theory. Germain (2011) suggests that the geographical distance between team members and the subsequent lack of face-to-face interaction and nonverbal cues can lead to trust becoming impersonalized. The impact of geographical distance will be further discussed in chapter 5.2.1.

Social networks and collaboration in the team. Social networks provide team members with an environment where individuals are sensitized to the process of identity interpretation and enactment through communication and collaboration (Jones & Volpe, 2011). In both case teams work-related communication and collaboration is organized quite frequently and systematically. Teams have weekly and monthly meetings and in addition to those, collaboration occurs through helping others, sharing experience and knowledge and solving problems together in the day to day work of the team. As for upholding personal relationships with other colleagues, one interviewee reported that the team members regularly have social activities outside working hours. Participant 4 from Singapore office tells how sometimes some of the team members go after work to a nearby park to run, or they might go to the movies or have lunch together. Many of the team members state that they do have friends in their team and that relationships are not limited to merely working together. Similarly to these more traditional relationships within the local team, sometimes personal relationships are upheld even across geographical locations. For instance, participant 5 discusses how she regularly communicates with one of her team members in Australia for discussing personal matters as well: *“not on a daily basis, but definitely once or twice a week we would get in touch with one another”*.

On the other hand, collaboration in team Asia's Singapore office is to some extent disturbed by a cultural characteristic. According to two of the interviewees, some of the Asian team members are not very eager to volunteer independently or willing to share their problems openly in front of everyone else. Instead, they need to be encouraged for it by the team leader or a team member. In contrast, members of the Australian location explicitly describe the openness in their team. Participant 2 relates how "*most of us are quite open. So if we have any, like, issue or anything we need to discuss, we just discuss [it] quite openly*". Although collaboration occurs in an organised manner, the network structure within the team seems to be quite loose in comparison to the team in Europe.

In team Europe, team members emphasise the importance of social networks for team collaboration, particularly when team members are geographically dispersed. Many of the interviewees state that collaboration and bonding activities are easier with local co-workers because one can do things together after work and discuss non-work related topics as well. Participant 7 elaborates this as follows:

Talking about work, it's quite tricky to start really knowing the other person in a virtual team. And local teams, it's of course much, much easier. We sit on the coffee breaks, it's easy to find common interests and talk with each other. (Participant 7, team Europe)

Sharing of personal information is particularly important in order to develop interpersonal relations and to personalize intergroup interactions (Scott, 2007). There are clear differences between the personal relationships between distant team members in team Asia and team Europe which can to a large extent be attributed to the fact that the members of team Europe have had one face to face meeting 9 months prior to these interviews. Three out of the four interviewed members of team Europe underline the importance of having face to face meetings at least occasionally, because they help in forming bonds between team members in different locations and creating familiarity. Participant 9 refers to the face to face meeting in several occasions, reflecting on its importance to overcome obstacles set by the virtual nature of the team to the team's collaboration and social networks:

But, as I said, because they are in Finland and Sweden, we cannot just bond. We are not that close like [those] in the same office, so this is definitely the difference. What helps... (...) Definitely the face to face meeting (...) we had, in April, (...) with other guys when we met first time with others and we spent some time together talking to each other about everything, so it was very good experience definitely. So you just know who you are talking with, even if it's a part of your team sometimes you

don't know how people look like [in the virtual team]. (Participant 9, team Europe)

Participant 9 attributes the strong team spirit of team Europe to a large extent to similarities between team members and to the team members' positive characteristics which have become more visible during the team's face to face meeting. Wilson et al. (2008) explain that individuals are likely to identify more strongly with other members of the group and to take part in regular and more profound communication when operating in a dense network. This in turn fosters perceived proximity between distant team members whereas otherwise individuals are required to work harder to maintain such relationships. This is also visible when comparing team Asia and team Europe and their social networks within and between team locations.

Communication climate. A positive communication climate refers to an environment where communication is characterized by trust, openness in communication, workgroup support, and participatory decision-making. It has a positive influence on identification and is thus important in sustaining group identification. (Shearman, 2013.)

In general, the communication in both case teams is experienced as open and organised. Both teams have pre-set meetings on weekly or monthly basis and communication between team members occurs both locally as well as virtually, although to a significantly lesser extent. With local colleagues it is easier, and more frequent, to discuss topics that are not related to work whereas with virtual colleagues discussion tends to be less spontaneous and chiefly revolve around work. This is noticeable particularly in team Asia where most of the relationships between distant team members seem less personal and casual than in team Europe. For instance, participant 7 from team Europe mentions: *"I talk with some of the colleagues in other locations every now and then, just to see how they are doing (...). That's really just casual "how are you" and so on"*. Team members in the European team emphasise the importance of having informal communication between team members in order to bridge the distance between the two locations. Participant 9 refers to it as below:

For the team it is better that we have this way [of] informal communication because then you feel also closer and you don't feel this distance. You know that you could say hi and just ask a question without any, any more words to, to make it formal. (Participant 9, team Europe)

On the other hand, team members in team Asia highlight the importance of regularity and openness in communication between team locations in order to bridge the distance. According to participant 1 from team Asia's Australian location it is vital to remain

open in discussions because of the distance from the main office in Singapore whereas participant 2 relates how *“it's not about the video conference things, it's all about that we talk regularly and that we discuss regularly. This is the important thing that, like, people work from different regions and work for the same team.”*

All in all, words such as open, good, relaxed, understanding, and fair are some of the adjectives interviewees used when discussing the communication climate in their team. Also humour is experienced as an important part of daily communication between team members. In both teams, team members experience a sort of safety and fairness to openly discuss, especially about work-related issues and questions, although in the Singapore location for some of the team members *“we gotta find their comfort zone if you want them to be open”* as participant 3 explains. To some it might be personal one-to-one discussions and for some it might be a question directed specifically to them. However, as participant 5 explains: *“we get our message across pretty good and we (...) talk about things fairly, (...) we're not afraid of one another or afraid to ask one another”*. This sort of positive communication climate can influence positively on identification, especially when taking into account the trust, workplace support and participatory decision-making discussed in the above sections (Shearman, 2013). Moreover, even though contents of communication between team members in the two case teams might differ, it is noteworthy that communication climate in general has a greater influence on identification than the contents of communication. Positive perceptions of internal communication are more significant particularly with proximal organizational targets such as the team. (Bartels et al., 2007; Smidts et al., 2001.)

In the next section, the three different dimensions of global virtual teams will be discussed in relation to group identification in GVTs. Prior to that, it should be summarised based on above sections that the construction and sustaining of group identification in both of the global virtual teams in Asia and Europe occurs through various aspects that function dynamically and often in connection to each other. These aspects include, but are not limited to, clearly defined common goals, well-organised team work, consistent and trustworthy workplace support, regular interaction and collaboration between team members, and an open and positive communication climate. One of the many possible examples of how identification can be constructed in the studied teams is demonstrated below in Figure 6.

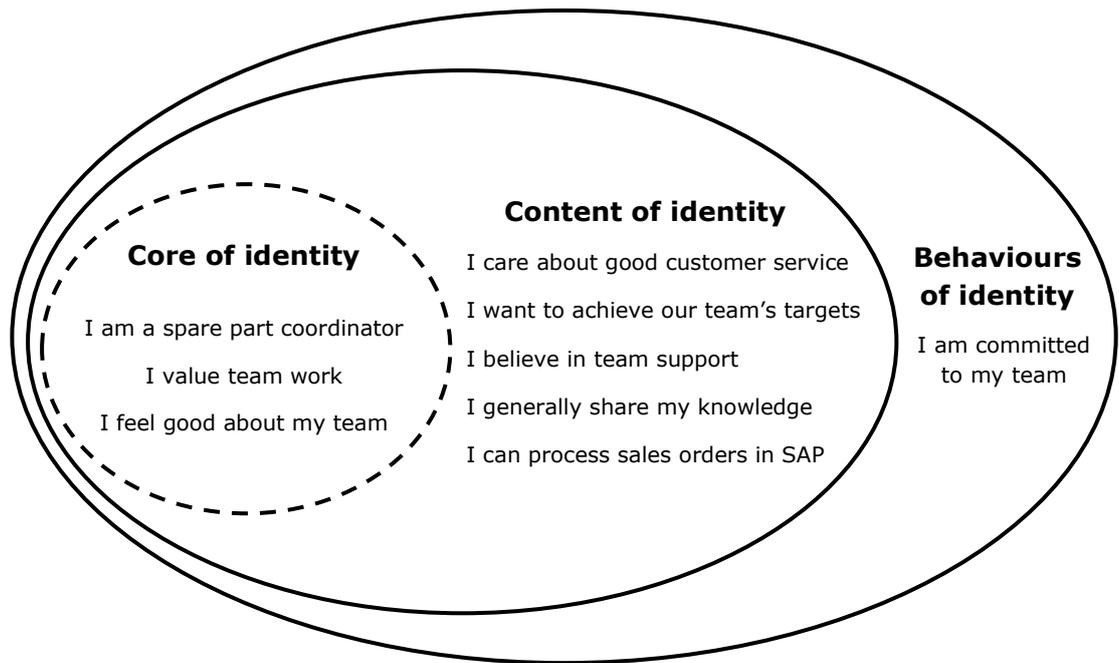


Figure 6 An example of components of identification in the case teams

5.2 GVT dimensions reflecting on group identification

Working in a global virtual team poses virtual teams to several aspects that make them different from traditional teams. These include for instance ways in which teams communicate, handle work, or identify with their team. The below section will focus on the three sub-objectives of the study concerned with global virtual teams and their dimensions of geographical and temporal dispersion, use of ICT in communication, and cultural and linguistic diversity. Based on theory and the pre-defined analytical framework as well as the responses from the interviewees, it will be explored in the following sections from three different standpoints:

- Geographical and temporal dispersion and group identification
- Use of ICT and group identification
- Cultural and linguistic diversity and group identification

5.2.1 *Geographical and temporal dispersion*

As per Mukherjee's (2012, 529) definition, global virtual team is an organizational design, in which members are often geographically dispersed and located on different countries, interact primarily through virtual methods with the help of information and communication technologies (e.g. e-mail, videoconferencing, skypeing), and rarely or

never see one another in person. This can place several challenges to the functioning of the team and to group identification.

As discussed in chapter 2.4, geographically distributed teams often experience limitations in interpersonal interactions and personal contact that normally in conventional teams would help to stimulate social bonding within team members. According to the conducted interviews, participants' reflections on how the team and its functioning are influenced by the geographically dispersed nature of the team are to a large degree related to how relationships are formed and maintained in the team. For instance, participant 9 from team Europe's Polish location expresses: *"but, as I said, because they are in Finland and Sweden, we cannot just bond. We are not that close like [those] in the same office, so this is definitely the difference [to conventional teams]"* (Participant 9, team Europe). Spontaneous, in-depth discussions are rather limited regardless of the possibility to use Skype for quick messaging. Participant 6 describes that *"somehow it's not ideal in the way that you cannot talk to the person right away, you cannot just approach someone in [their] desk and have an open discussion"* (Participant 6, team Europe). Moreover, communication with distant team members usually tends to revolve around work-related topics whereas local team members can informally discuss on daily basis and *"maybe come really good friends"* (Participant 7, team Europe). Based on the interviews, geographically distributed team members can sense a lack of social bonding, informal discussions, humour, and spontaneous communication which can further impact on relationship-building, team cohesion, belongingness to the team, as well as the degree of familiarity and salience of team members in other locations. A clarifying example is given by participant 5:

Sometimes I feel like I want to sit in Sydney with them. And converse with them face to face. (...) Because we all work together, I feel we should be sitting together. So (...) I feel like a little bit, slightly like an outsider sometimes, because I'm not there with them and they get to chat and converse with one another on a daily basis. (Participant 5, team Asia)

This is something that is discussed in the current literature. According to theory, relationship-building can take more time and effort in virtual working environments due to the lack of interpersonal interaction and face-to-face contact (Weber & Kim, 2015; Saarinen, 2016). Due to the limits to spontaneous informal personal communication, discussion is focused mainly on work-related topics and the extent of peer engagement and creation of common ground is hindered. Furthermore, decreased proximity to team members can manifest in decreased sense of belongingness and feelings of isolation (Mukherjee et al., 2012; Saarinen, 2016). This is supported by the interviews in the two virtual teams as seen above, although what is notable is that most of the calls for deeper

interpersonal relations come from the participants in team Europe. Moreover, it should be remarked that regardless of the challenges in relationship-building, team members do tend to have at least some sort of relations with distant team members. Social bonding in these cases is merely slower and more demanding than in traditional teams which can impede identification with the team.

Contrary to previous literature, there are no suggestions that geographical dispersion would cause conflict, disagreements, or decreased satisfaction in the two teams (Bergiel et al., 2008; Gilson et al., 2015). In fact, as discussed in chapter 5.1.2 team members express satisfaction to the team rather freely and extensively. Based on all of the interviews, satisfaction is on high level, particularly in relation to the functioning of the team, co-operation and communication in the team, the customer-focus in the team and towards the team members in general. Also diverging from earlier literature, according to which decreased proximity can result in less attention and effort applied by distant team members and consequent freeloading (Gibson & Gibbs, 2006), the interviews did not support this argument. On the contrary, several team members expressed how everyone is so busy and focused on their work that not much thought is put into the relationships with distant team members. Although this is positive in regards to team functioning, it might be a signal of the lesser salience of team identification. That is to say, instead of identifying with the team, team members tend to identify more with their work or their local sub-group than the entire global team. Similar results have been achieved by Vough (2012) who found that interesting and satisfying work that engages employees allows them to bring their identities into work and, consequently, leads them to identify with their profession that involves such work.

On the other hand, in the current world of global business, it is seen as rather normal to have team members in other locations, so the functioning of the team is more a question of having the same way of working in all locations of the team (Participant 2, team Asia). When asked about whether there is any major impact from the geographical dispersion to the team, participant 1 states that *“I think in the end this set up is all about (...) putting the customer first”* (Participant 1, team Asia). All in all, both teams function smoothly regardless of geographical dispersion and team satisfaction is on a substantial level. No distrust or conflicts between different locations is observable, but on the contrary team members are keen to further develop their relationships with distant team members. In fact, based on the responses from the interviews, the challenges related to the deficiency in social bonding and informal communication are perceived to be caused not only by geographical dispersion but also because of the ways in which work is organized in the teams. As mentioned, team members are rather independent in their work and have individual customer assignments. This is seen as somewhat a limiting factor in really getting to know one’s team members, offering them help, and knowing how they perform with their work:

I would say it's important that everyone (...) helps each other, and if for example I would have little work, I can always check with my colleagues if I can help out with something. (...) It works really well with the local team, (...) we have a good understanding what other ones are doing, but that's always a challenge with the other locations. (...) Because, as people do their daily work quite independently, so... As long as everything goes well, there are no real challenges. (...) Of course it's, with the virtual team, (...) it would be good to meet them (...) every now and then, because (...) I don't speak with them so often, and know how they do and how they feel about things and how their workflow is, because I don't see them in the same way. (Participant 7, team Europe)

However, at the same time all team members have the same way of working with their customer assignments which eases the functioning of the team and can evoke feelings of similarity between the team members. Participant 2 mentions this when discussing the global and virtual nature of the team:

We have to have the same way of working. Even though we are based in different regions, we have to... Have the same rules. Because (...) we belong to a big team. If we work in different ways, that might cause some troubles. (Participant 2, team Asia)

All in all, as suggested by theory, global virtual teams are experiencing challenges in forming meaningful relationships with distant team members, but in the current global business world the geographical dispersion of the team is seen rather given and is more a question of adapting to the situation. The challenges brought about by global dispersion can be met with means such as regular virtual team meetings, a face to face meeting in the case of the European team, and by having same ways of working among all locations. All things considered, even though a number of challenges are mentioned, the geographical dispersion of the team is generally seen as a positive feature and important for the efficient functioning of the team in supporting the company's customers. However, it's impact on the foci and significance of identification is evident.

In terms of time difference, in both teams some trials are seen in connection with delays in communication. For example, questions from the Singaporean team need to be set to the Australian team bearing in mind the three hour time difference:

It [the geographical and temporal dispersion] doesn't have a big impact to be honest, except with the time difference obviously, so I have to

always take that into account when I want to contact and communicate with them and... It's difficult when I have a question at 4 pm, I want to ask one of my colleagues in Australia a question, they're not available. But overall (...) [if] I do have questions at 4 pm, I would just leave it to the next day, send an e-mail (...), so... It's pretty good. (Participant 5, team Asia)

However, this is largely a question of time management and team members just need to prioritize their work while taking into account the time difference to other team members (Participant 3, team Asia). In worst case scenario there will only be one day delay in communication. Temporal dispersion is thus seen as something that differentiates the teams from traditional teams but it is not experienced as a considerable burden to the team. As supported by theory, time differences between team members influence on the synchronicity and response times of communication as well as coordination of work but they also enable GVTs to operate around the clock and to handle responsibilities at a flexible time schedule. (Bell & Kozlowski, 2002; Chudoba et al., 2005; Weber & Kim, 2015.) All in all, the influence of the team's geographical and temporal dispersion is seen as rather given, team members are used to it and find it useful in terms of how the team functions and performs. As participant 7 states “*it's more good coming out from us sitting in different places than negative. As we can help each other in different ways*” (Participant 7, team Europe).

5.2.2 Virtual interaction

The use of information and communication technology is another considerable factor in differentiating virtual teams from traditional teams that operate face to face. Together with geographical dispersion it impacts on the form and frequency of communication (whether it is face to face or virtual, or asynchronous or synchronous), as well as on response times in communication, and on the coordination of work. Meanwhile it also guarantees virtual teams with the advantage of being able to operate around the clock and from whichever location preferred by the company. On individual level, it enables team members to take care of their responsibilities at times suitable for their own location and schedules. While there are several advantages in using ICT, particularly from the point of view of communication and team functioning, its impact on team identification seems to be somewhat contingent with the forms of ICT used in the team.

Both teams in Europe and in Asia use actively different forms of information and communication technology in optimizing the teams' functioning and the co-operation and communication of their team members. Technologies used on daily basis include

SAP, Microsoft Outlook and Skype for Business whereas WhatsApp is used when it is necessary to inform other team members about someone's absence and the need for a backup person to take charge. For team meetings or meetings between two or more people, videoconferencing, telepresence or Skype meetings are used. Of these technologies SAP and Microsoft Outlook can be categorized as asynchronous, lean media whereas Skype for Business, videoconferencing, and telepresence are synchronous and richer forms of computer-mediated communication.

While asynchronous communication tools can ease interaction in GVTs and are important for team efficiency and collaboration, the interviewed team members express that they can also have several challenges to communication in comparison to richer and synchronous media. According to some of the interviewees, asynchronous textual communication might contribute to decreased message clarity and the development of misunderstandings between communication partners if their level of English skills or their cultural style of writing is significantly different from each other. This will be further discussed in the following section about the influence of cultural differences on team identification. Another challenge in using asynchronous computer-mediated communication tools is the lack of social bonding with other team members. In discussing about textual communication, participant 4 expresses how it can be difficult to convey the point of a message and accompanying emotions or cultural differences which in turn hinders the social bonding between communication partners: *"If we don't have communication face to face, especially within the team, we don't talk to each other, we're only typing, I can feel there is this lack of bonding in between [us]..."* (Participant 4, team Asia). Similarly, participant 6 from team Europe alludes to the lack of social bonding when using asynchronous communication methods in team interaction. According to her, even in Skype most of the communication revolves around work, is rather formal, and goes straight to the topic without allowing for any informal chitchat or spontaneous conversation on other topics than work. Communication is based on necessity, not because team members would like to discuss topics related to something other than work. (Participant 6, team Europe.)

These results support the findings from previous studies such as that of Sivunen (2007, 90) who found that technology-mediated communication often tends to be more task-focused in global virtual teams rather than revolving around relational aspects of communication. While this can be advantageous in terms of team functionality and efficiency, in long-term the lack of attention to relational issues in the team could possibly result as a decline in team identification. Moreover, virtual asynchronous communication does not only hamper relational communication, but it can also impede spontaneous interaction and informal communication as called for by participant 4 above (Gibson & Gibbs, 2006; Sivunen, 2007). These also are important building blocks in constructing team identification.

On the other hand, when paired with regular use of richer computer-mediated communication media, ICT can be truly taken advantage of for the efficient operation and communication of the team. Participant 1 states that regular meetings with richer communication media such as video conferencing are important particularly for team members that are located away from the majority of the team. They can help to battle feelings of isolation as well as increase understanding between communication partners due to better virtual presence. (Participant 1, team Asia.) Synchronous communication and talking instead of writing are good ways to increase message clarity and to prevent or solve misunderstandings at the spot as communication partners are able to express themselves more freely and ask clarifying questions (Participants 2 and 5, team Asia). Synchronous communication is also important for coping with diversity and the different levels of English skills present in the communication situation (Participants 3 and 5, team Asia). As participant 3 puts it: *“it really helps to break down barriers, communication barriers”* (Participant 3, team Asia).

This is in line with current literature suggesting that synchronous ICT improves the quality of real time discussions by enriching them with informal, relational communication. This can in turn increase team spirit and feelings of togetherness, i.e. influence positively on team identification. (Sivunen, 2006; Bell & Kozlowski, 2002.) Because synchronous communication tools help to maintain information richness and allow for more interaction in communication (Bell & Kozlowski, 2002), it can be assumed that they are also more beneficial in terms of message clarity and in increasing understanding and decreasing or resolving misunderstandings between team members, which is maintained by the results of this study.

Furthermore, synchronous and richer forms of communication media enhance social bonding between team members. Many of the interviewees point out the superiority of richer forms of information and communication technology in regards to relational communication, relationship building and creation of familiarity and feelings of togetherness between communication partners (Participants 1 and 4, team Asia; Participants 8 and 9, team Europe). As participant 9 states: *“the impact is that we just feel closer than with only (...) e-mails. That we know each other and, yeah, we are closer. (...) Definitely if you can talk, not write, it makes things better”* (Participant 9, team Europe). What is noteworthy, however, is that relationship building seems to still occur more slowly than in conventional teams where social bonding starts to occur from the moment people meet each other. Participant 3 from team Asia clarifies this with the below example:

First week, maybe, if you invite maybe my team to join in... Maybe first two weeks they don't talk much... But, you know (...), after that, maybe they get used to the person on the other side, and then, you know, get to

know more, and then they can, maybe communicate more. (Participant 3, team Asia)

All in all, for the purpose of constructing and sustaining team identification, it seems that asynchronous communication media needs to be paired with richer forms of computer-mediated communication tools with which discussions can take place in real-time and team members are able to better interpret social and non-verbal cues. This is also supported by past studies according to which visible social cues facilitate identification (Pratt 1998). Moreover, synchronous communication also helps later with asynchronous communication since “*the communication always works better if you have a face to the e-mail or phone call*” (Participant 7, team Europe). Consequently, as virtual communication gains more personal characteristics it should become easier for team members to develop more meaningful relationships with distant team members. Past studies have discussed the salience of proximal and distant identity targets, arguing that proximal colleagues become more important for identification since they are encountered more often, they provide more potential for finding relatable features, and they allow for more exposure to group symbols, among other things (Vough, 2012). This would suggest that rendering distant team members more salient for identification by presenting strong identity cues through regular and richer communication could help to shorten the perceived proximity of team members.

Nonetheless, even though the use of ICT brings about advantages that make work in a virtual team more efficient and communication with distant team members easier and more meaningful, emphasis is still laid by several interviewees on more traditional ways of constructing team cohesion through communication. For instance, participant 7 argues the below:

I think it's planned, one face to face [meeting] within this year for the both, virtual and local team. So that, as long as you have that at least once a year, maybe, it's important. (...) It always improves the communication. Even though there is no problem with the communication now, it improves it still. It's just that's how it is. (Participant 7, team Europe)

Same sentiments about the impact of virtual interaction on group identification are echoed in the Asian team by participant 1:

Face-to-face is always the best way. I mean (...) we have weekly meetings (...) where we just look by the teleconference. It's obviously a lot better if we're all face-to-face, than doing it that way, so... Obviously

we probably feel like as a team altogether, a little bit more in presence rather than being apart. (...) It's gotta be better than the way it is at the moment, but, I mean we're used to it, but obviously operating face-to-face in any sense is always better.

In current research communicative action is seen as an essential feature of virtual teamwork. By ensuring frequent communication between team members, virtual teams are able to share knowledge and experiences and, as such, manage their otherwise imperfect and deficient communication (Weimann et al. 2010). While less complex tasks often might require only asynchronous and leaner communication tools, it seems that in global virtual teams there is still a stronger need for synchronous and richer communication tools in order to ensure the development of meaningful relationships between team members and to encourage and sustain team identification. Traditional means of constructing team identification (face-to-face interaction) are still seen as superior to all other methods, but the results nonetheless support what Henttonen et al. (2005) argue in their research about managing distance in a global virtual team: that is, information and communication technology does not restrain team interaction and that the sharing of relational information can occur in virtual teams as well. As pointed out by participant 3 above, the difference lies just in the slower pace of the development of social relationships in teams co-operating through virtual methods as is also pointed out by Henttonen et al. (2005).

5.2.3 Cultural and linguistic diversity

The geographical dispersion of a global virtual team is often accompanied by differences in the team members' cultural values, traditions, ways of working as well as ways of interacting with others. Also linguistic differences form an important part of cultural diversity. All these characteristics can impact on several aspects of global virtual teams and hence may reflect on group identification.

Both of the studied teams in Asia and in Europe are characterised by a degree of cultural and linguistic diversity. Team Asia has members from cultural backgrounds such as Philippine, Myanmar, Malaysia, Singapore, South Africa and Australia, whereas team Europe consists mainly of Finnish and Polish team members as well as of one member from the Philippines. Official team language in both teams is English. According to the interviewees, cultural diversity in the team is visible for instance in willingness to share information related to one's own work or performance or one's personal life, as well as in readiness to deal with feedback or provide it. It can also be perceived in ways in which people express themselves and their opinions both in virtual

face-to-face meetings and in textual form. All in all, according to the interviewees, the impact of cultural and linguistic diversity in the team can be seen in the communication within the team members, in the ways the team functions as well as in the satisfaction of team members towards their team being multicultural.

In a multicultural team that is geographically dispersed, the role of ICT is seen as an important factor in easing the influence of diversity. While asynchronous communication technology provides essential tools for global virtual teams, the interviewed team members state that they can also pose several challenges to communication in culturally diverse situations. According to participants 3 and 4 from team Asia, asynchronous textual communication might contribute to the development of misunderstandings between communication partners if their level of English skills or their style of writing is significantly different from each other, particularly in terms of culture. Participant 4 gives an example of a situation where one's cultural background is visible in the way they communicate in written form and can hence impact on the interaction of the communication partners. According to her, in some cultures the extensive use of full stops or many question marks in a row might be misunderstood by the recipient as anger which might consequently create tension in the communication (Participant 4, team Asia). Also participant 8 mentions the individual and cultural styles of writing e-mails that can impact negatively on communication and participant 5 from team Asia points out the difficulty in trying to understand what a colleague is trying to say if their English skills are not advanced enough (Participant 5, team Asia; Participant 8, team Europe). However, on the other hand particularly richer forms of ICT are seen as essential in dealing with cultural differences. Participant 3 elaborates on the subject as below:

We have telepresence, because we have people from different parts of the world, right. (...) So everyone speaks English but, [in a] different way... This diversity is not easily understood if you just work by e-mails. So, the communication by telepresence, Skype, yeah, (...) I think all this is important and especially with the diversity. (Participant 3, team Asia)

These challenges related to cultural diversity in virtual teams have also been noted in previous research in which they are explained to be caused by the tendency of leaner information and communication tools to hamper the use of social and non-verbal communication cues. Such cues can normally be used in face to face communication to transmit interpersonal affections such as warmth and attentiveness. In the absence of these cues, message clarity and communication richness suffer due to the difficulty of communication partners to observe each other's visible behaviour during the communication. (Gibson & Gibbs, 2006; Gilson et al., 2015; Järvenpää & Leidner,

1999; Saarinen, 2016.) Also Han and Beyerlein (2016) point out how GVT members can experience a failure in interaction due to cultural differences and associated interpretation problems, insufficient language skills, and different communication contexts. Where some cultures emphasize the importance of non-verbal, contextual cues in communication and interpretation of messages, avoiding negative or confrontational tones, others rely on more direct and explicit language to convey messages with a precise and clear meaning regardless of possible negative or confrontational content. Some are more formal than informal or more task-oriented than people-oriented in their communication. (Gibson & Gibbs, 2006, 461; Järvenpää & Leidner, 1999, 793; Saarinen, 2016, 172.) These same issues are frequently commented on by the interviewees. However, by using richer forms of communication media, these challenges can be significantly reduced because individuals are able to communicate synchronously, ask for clarification more easily, and observe visually or audibly one's communication partner and the social cues they are passing on.

Cultural diversity can also to a slight degree be seen in the way the team functions, particularly in the Asian team that has more cultural diversity than the European team. Some of the interviewees point out how cultural diversity in the team is visible for instance in willingness to share information related to one's work or performance, or readiness to provide or accept feedback. According to participant 4 particularly the Asian team members do not provide feedback, because "*in their mind-set, it's always like "If I tell this one, then people will think that I'm complaining and I'm blaming another person"*" (Participant 4, team Asia). Both participants 3 and 4 also provide examples of Asian team members who might not be as willing to bring forth their personal challenges in work which is typically used as a learning method in the team:

In Asia, people are more reserved. (...) They don't want to tell if sometimes they make mistakes, maybe they are more embarrassed. They do not want to tell everyone, they do not want to be named. So you have to be sensitive to this, but... But at the same time we want to bring it up. Because the mistakes, because the mistakes are very important for everyone else not to repeat. (Participant 3, team Asia)

Similar challenges can also be perceived in ways in which people express themselves and their opinions in virtual meetings. Once again it is mentioned that Asian team members are not as comfortable with contributing to the co-operation in meetings, but they would rather not participate actively to the discussion (Participant 4, team Asia) Participant 9 from team Europe expresses similar sentiments towards the Finnish team members:

Finnish people (...) are not that open... (...) they need much more time to trust other people. They just keep the distance from the beginning, and... Yeah, and it is visible. We here in Poland, especially when it is work-related (...) we are more louder than... When we want to have a solution, we are really pushy, because we have also pushy customers. (Participant 9, team Europe)

These challenges have been widely discussed in the extant literature about global virtual teams and the influence of cultural diversity. Hindrances in group-related behaviours such as knowledge sharing, relationship building and intercultural learning have not been uncommon in previously conducted studies. For instance, Gibson and Gibbs (2006) maintain that knowledge sharing tends to be less effective through virtual methods than in traditional teams. Han and Beyerlein (2016) on the other hand synthesize 60 empirical articles and conclude that cultural diversity has an important role to play in topics such as relationship building, trust development, and intercultural learning. Finally, Au & Marks (2012) point out how variance in ways of working and language skills can hamper identification with virtual teams due to the formation of negative stereotypes about a certain race or national culture. Similar conditions are slightly visible in both of the studied teams, although to quite a marginal degree.

In fact, cultural diversity is largely taken notice of in both teams and even seen as a benefit for the team. Participants 1 and 4 from team Asia point out the importance of cultural diversity in achieving team goals, such as that of serving the customer as well as possible. Participant 1 from team Asia and participant 7 from team Europe both highlight the cultural diversity as a positive team characteristic. Team members in both teams generally seem to be very culturally aware and naturally understand cultural diversity as one of the defining characteristics of their team, as shown by the below example of participant 6 discussing cultural diversity in the team:

For me it's easy, because if there are differences, I can just claim it "ah, it's a cultural difference, maybe I should behave different way". And if (...) the way we think is different, it is because we are different. (...) Because every person has his own view, you don't have to see it... Like, you don't agree on all things. But the good thing is that at least I get something from that view that is different from mine. So it's not always that my view, you know, overshadows with everyone's point-of-view. (Participant 6, team Europe)

In order to minimize the possible negative sides of cultural diversity, interviewees emphasize the importance of having a common way of working for all team members

(participant 2, team Asia) as well as maintaining good cultural understanding and communication skills (Participant 3, team Asia; Participant 9, team Europe). Team members tend to see cultural diversity more as an opportunity to learn from others and from culturally diverse situations than as a threat to the team (Participant 3, team Asia; Participant 6, team Europe). In fact, some of the interviewees would claim that possible disturbances in how the team functions and co-operates is more related to distinct personalities than cultural differences (Participants 2 and 5, team Asia). Most important topic in cultural diversity seems to be the ability to be aware of and understand the role of cultural differences as participant 9 from team Europe expresses below:

We need to be aware of other members' culture. And if there are big differences, we need to know about this. We need to get to know each other, because way of working might be different. (...) There is no such situation, like, only our way of working is the best one. We need to be aware that, that other people can think in a different way. Yeah, so, it is very important to be aware of other members' culture and what is important for other people. (Participant 9, team Europe)

As Han and Beyerlein (2016) state, “cultural diversity in teamwork is often portrayed as a double-edged sword”. One on hand it seems to influence on issues such as knowledge sharing, relationship building and intercultural learning but on the other hand it seems to increase employee satisfaction and enhance teamwork due to a greater variety of perspectives and experiences. These results concur with the findings of Sivunen (2007) who found that cultural diversity was in many teams experienced as positive and interesting aspects, as well as stimulating for relationship building because team members were more motivated to get to know each other better. Au and Marks (2012) on the other hand found that employees in their study believed similar working patterns and cultural practices will lead to stronger identification. Comparable sentiments are conveyed by interviewees discussing the importance of having a standard way of working within the team. In contrast, these results did not strongly support previous studies according to which the geographical dispersion of GVTs would indicate the higher possibility for team members to experience the formation and associated consequences of subgroups that form on the basis of cultural, temporal and linguistic similarities (Gilson et al. 2015). None of the interviewees mentioned that they would have experienced the creation of cultural or linguistic subgroups within the team.

In conclusion, the three aspects of global virtual teams discussed above reflect not only on the functioning of the team but also on group identification in various ways. In the next chapter, theoretical and managerial conclusions together with the suggestions for future research are presented.

6 CONCLUSIONS

In the current world of global business, organisations are increasingly demanded to coordinate activities spanning geographical, temporal, and cultural boundaries. Consequently, conventional teams are being supplemented or replaced with virtual teams that with the help of ICT enable collaboration among geographically distributed team members. While there are many advantages to global virtual teams, current research also discusses many of the challenges virtual teams might be subject to, especially if these challenges are not adequately taken into consideration and managed. Identification can be one of the ways to manage such challenges as it provides teams with an essential binding factor in the virtual and dispersed context. Studies have shown that a strong shared identity within a team can for instance reduce conflict within teams and strengthen commitment, trust, group cohesion, and cooperative behaviour which in turn enhance organisational performance.

The aim of this study was to explore group identification in global virtual teams that are characterized by geographical dispersion, cultural diversity and reliance on information and communication technology. The research problem is focused on the topic of how group identification is constructed and sustained in global virtual teams. Three supplementary research questions were designed to provide further insight into the topic under investigation. The first sub-objective of the study was to explore how group identification is experienced in a global virtual team by the members of that team. The next three sub-objectives of the study aimed to shed light on how geographical and temporal dispersion, virtual interaction, and cultural and linguistic diversity reflect on group identification.

This chapter covers the conclusions of the study. Firstly, theoretical contributions are presented by using the analytical framework presented earlier in chapter 4.4. Secondly, managerial contributions are discussed in order to provide some guiding principles for businesses to follow when aiming for efficient use of identification in global virtual teams. Finally, the limitations of this study as well as some suggestions for future research are proposed.

6.1 Theoretical contributions

In chapter 4.4 an analytical framework based on existing theories and findings was presented, bringing together the elements that help to create and sustain group identification and the elements of global virtual teams that might reflect on identification in virtual teams. The related findings from this study together with

theoretical contributions are identified below in order to provide answers to the research question and its sub-objectives.

As suggested by previous research, group identification is experienced through cognitive, evaluative and affective dimensions which can be seen for instance in the way team members define and describe their team, how they experience similarity between themselves and the team, and how they feel belongingness to the team. Group identification is also connected to the value connotations and the team dynamics in the team which help in sustaining group identification. Although some togetherness was experienced in the teams, the identification with the group seemed to be somewhat limited due to a lack of visible team values and interdependent team work. On the other hand, as proposed by earlier literature, matters such as positive communication climate, well-developed social networks, and presence of organisational support highlighted the team members' involvement with the group and thus the potential for group identification.

In short, the construction and sustaining of group identification in both global virtual teams in Asia and Europe occurs through aspects that include, but are not limited to, clearly defined common goals, shared context, well-organised team work, consistent and trustworthy workplace support, regular interaction and collaboration between team members, and an open and positive communication climate. All of these contribute to the factors that help creating and sustaining identification, i.e. feeling membership in a specific group, investing emotionally and psychologically to the team, holding and relating to specific values, and experiencing certain team dynamics.

As to the second sub-objective of this study, the results are somewhat consistent with previous literature according to which the geographical and temporal dispersion of the team may impede identification to a certain degree because it influences on how relationships between team members are formed and maintained. Deeper, more meaningful relationships form slower and require more efforts mainly due to the limits to spontaneous, informal discussions and social bonding that the dispersion of the team causes. However, at the same time the geographical dispersion is seen as a defining characteristic and important for the team to carry out its fundamental mission of serving the company's geographically dispersed customers. As long as the potential influence of the team dispersion is taken into account and actively managed for instance through regular communication, promotion of a shared context and team values, and providing an informal communication climate, the risks to group identification can be reduced.

For the third sub-question for this research, i.e. how does virtual interaction reflect on group identification, it seems that although group identification was expressed to benefit more from a face-to-face team composition, the role of virtual interaction was seen mostly as a positive characteristic in the team. As suggested by earlier literature, it was seen as a tool to unite team members, ease collaboration, and lower the levels of

formality in communication, thus improving the relationships between team members in different locations. Furthermore, emphasis was laid especially on the importance of richer, synchronous communication media, such as conference rooms or Skype instead of asynchronous communication tools such as e-mail. In fact, particularly asynchronous communication tools are seen as challenging for group identification. They may increase misunderstandings, decrease message clarity and emphasize the focus on task-related communication rather than relational communication. This can limit social bonding which is important in constructing and maintaining group identification in virtual teams. However, the regular and systematic use of richer forms of communication tools can be a significant help in not only reducing the negative effects of ICT on identification but also in strengthening the construction and maintaining of identification in globally distributed teams. These results are largely in contradiction with some of the past research according to which asynchronous textual communication in fact assists in the identification process as opposed to rich communication media (Scott 2007).

Finally, when exploring the relationship between cultural and linguistic diversity and group identification, it can be noticed that diversity reflects particularly strongly on interaction via asynchronous computer-mediated communication tools. Diversity may also show in dissatisfaction following from limited knowledge sharing, or a lack of participation in common teamwork such as problem solving, all of which are attributed to cultural differences by the interviewees and may in consequence cause negative stereotyping within the team. However, if adequately taken advantage of by upholding cultural and linguistic diversity as a defining characteristic in the team and as a point of effectiveness, pride, and benefit for the team, diversity can be used to increase identification among individuals who value diversity and its positive effects for teamwork. Surprisingly to previous literature, cultural diversity was not seen as altogether negative, but on the contrary, something that is taken more as a given in global virtual teams or as an intrinsic team characteristic. It seems that as global virtual teams and international working contexts are becoming more and more common, employees are getting used to the diversity present at work. In some cases it is not really even noticed in any particular manner in the team and in some cases it is seen as richness for the team and the team's functioning. Together with having a standard way of working for all team members as well as promoting cultural awareness and multicultural skills in the team, it is possible to minimize negative effects of diversity on identification and take advantage of its positive inputs to group identification, particularly if team members already have experience and interest in working in multicultural contexts. All in all, both teams take an advantage of the benefit of GVTs to utilize their own cultural diversity and maximize their expertise when serving their culturally diverse customers as a global virtual team.

On the whole, the above findings give a good insight into the ways in which group identification is constructed and sustained particularly in global virtual teams. In agreement with previous literature, identification can occur through virtual methods and across larger geographical distances, but the process will be slower and more complicated than in traditional face-to-face teams. This study thus argues that in global virtual teams conditions that are favourable for creating and sustaining group identification within the team need to be actively supported and managed by higher levels of the organisation, such as the team leader and higher levels of management. In teams that are geographically dispersed and interact via ICT, it is particularly important to promote team related values and characteristics with which individuals are able to identify and share a common context. A team is the composition of its individuals who need to be brought to the same page in order to enhance the team functioning and organisational results that the team is responsible for.

Finally, even though this study focused only on two global virtual teams with a relatively stable membership and limited degree of geographical dispersion and cultural diversity, many of the presented factors contributing to the creation and sustaining of group identification are rather universal by nature, which suggests that the findings of this study may also be relevant in other circumstances for global virtual teams.

6.2 Managerial contributions

The development of group identification in virtual team settings is a slow and complex process. However, the benefits of group identification can be considerable both for the team itself as well as for the organisation in general. In this chapter, the findings of this study are further explored in order to provide suggestions for how managers and team leaders can reinforce the identification of its employees and how the strategy for the creation and sustaining of identification should be designed.

As has been already established in the current literature, there exists a multitude of ways for managers and team leaders to reinforce group identification in global virtual teams. When combining such propositions with the ones that emerged from the empirical data of this study, it becomes evident that the most central means of reinforcing identification and removing feelings of perceived distance in such a challenging context as the context of global virtual teams is by ensuring that the team has clear team defining characteristics, well-articulated team values and goals, and a shared context that are coherent to those of the team members. Moreover, organisations need to acknowledge the importance of its members and their desire to be successful in what they do. Team members, although part of a team, still need to gain individual recognition of their usefulness and meaning to the team in order to feel a sense of

belonging. This can occur through perceived organisational support, organisational justice, and perceived internal respect.

Another issue emphasized in this study was that of regular interaction and communication which is an essential element for creating common ground and a shared context within a global virtual team. Through regular interaction with rich, synchronous communication media, team members are able to create rapport, share their input and effectively manage otherwise incomplete or imperfect communication. The creation of an open and positive communication climate is also paramount for team members to feel more open to communicate even with distant team members, and forms an important base for informal, spontaneous communication to occur.

Consequently, by assuming the importance of regular interaction and communication team leaders can help to increase the efficiency of knowledge sharing and co-operation between distant team members. With investments into not only regular interaction, but also to well-organised team work and collaboration, it is possible to increase the interdependence between team members and hence the feelings of belongingness and identification. As previously mentioned, this can result in organisationally valued results such as job satisfaction, employee compliance, affective commitment, decreased employee turnover, increased loyalty, and motivation to coordinate team members' efforts to fulfil collective needs and goals.

Another point of concern in global virtual teams is the possible impact of cultural diversity in team work and group identification. What is most noticeable in the studied teams is that cultural diversity was in fact seen mostly positively in the team, as a defining characteristic that makes one's work interesting and is assumed as an intrinsic part of a global virtual team. It is therefore suggested that in globally operating virtual teams it is essential to promote the value of cultural diversity through the values of the team but also through more formal trainings and discussions on the topic. By raising cultural awareness, promoting intercultural learning and endorsing the importance of openness and tolerance, teams are likely to prevent misunderstandings or conflicts within the team as well as negative perceptions about team members from other cultures. These will consequently have a significant positive effect on teamwork and feelings of belongingness when perceived differences or negative perceptions between team members are purposefully dismantled.

Finally, team leaders should truly pay attention to the multi-foci nature of identification, i.e. the possibility of an employee to identify either with work or one's team or with both. As van Knippenber (2000, p. 138) puts it "*the more an individual identifies with an organization, the more likely he or she is to take the organization's perspective and to act in the organization's best interest*". It seems that the virtual nature of the two studied global virtual teams as well as the ways in which the work of these team members is organised into individual customer assignments drives team

members to identify more with their work instead of identifying with the team. In terms of using identification as a means of directing or guiding employees with internal controls, such as trust, employee motivation, or converging individual and organisational goals, organisations and team leaders need to consider which is more important, identifying with the team or with one's work. Van Knippenberg (2000, p. 138) also states that "*the more one conceives of oneself in terms of the membership of a group, that is, the more one identifies with the group, the more one's attitudes and behaviour are governed by this group membership*" (Knippenberg, 2000). It is therefore important to consider what is wanted with the identification of employees. While identification with one's work is also important and beneficial for achieving good results, one might wonder whether identification with one's work will lead to behaviour that supports more the achieving of employees' individual goals with the expense of team values whereas group identification could possibly make the team work more in unison for the benefit of the entire team and also help the team through more challenging times? Is an individual an important part of the team because of how they can contribute to the team's results or because they belong to a team that together produces good results?

6.3 Limitations and suggestions for future research

The focus in this study is on two similar virtual teams from one single organisation which potentially risks placing some limitations on this research. As global virtual teams are complex ensembles defined by not only their composition of team members, but also by their geographical dispersion, cultural diversity, and the use of different kinds of virtual communication tools, they are every so often unique by nature, as is also the case in this study. This can pose challenges to those who wish to replicate or conduct a similar research for comparison of results.

Moreover, this study provides more of a cross-sectional overview on a variety of features characteristic to global virtual teams influencing on group identification. This together with the number and complexity of these features holds the potential of placing the results under the risk of being gained through rather superficial exploration. Consequently, the subject could benefit from a more in-depth and detailed consideration concentrating on each of the specific aspects of global virtual teams in particular. It is also recommendable to reproduce this study in a wider research context with a higher number of case teams and a wider range of organisations in order to increase the generalisability of the results of this study. Researched teams should also represent a different or larger variety of cultures as in this study (Europe vs. Asia).

As the collection and analysis of data was based on semi-structured interviews and qualitative analysis, the findings are set under the influence of the author's interpretations of the phenomenon. The use of multiple different sources, such as written documents, group interviews, or observation in team interaction situations, could have provided more points of view to the subject and hence assist in developing the author's perspectives on the subject. As a result, there is also a possibility that the findings could be explained by factors that were not revealed in the interviews or otherwise eluded the attention of the author. However, the size of the research population in relation to the sizes of the case teams, as well as the systematic coding process used for the analysis of the interviews supported in controlling the impact of such risks. Moreover, a more systematic and exhaustive examination on the topic would require significantly more extensive resources to be efficiently conducted.

Regardless of the potential limitations explained above, this study gives a previously unseen insight into the ways in which group identification can be constructed and sustained in global virtual teams and thus provides a prominent contribution to the existing literature on identification and on global virtual teams. Identification in global virtual teams is as a research field still rather limited in the number of studies exploring identification in this specific context and hence merits further consideration by the academic society. However, as this study focused on group identification in two global virtual teams with rather independently working team members and a somewhat stable team membership, it would be interesting for future research to explore identification in teams with a more flexible membership or with team members that are more interdependent in their work. Such teams might constitute more demanding an environment for group identification to be constructed and sustained and pose different needs for maintaining identification.

7 SUMMARY

Group identification offers a multitude of potential benefits to teams and organisations in general, yet the ways in which it is constructed and sustained in the global and virtual context have not so far been thoroughly explored in current literature. As such the topic deserves further consideration by the academic society. The current study attempted to explore group identification in global virtual teams that are characterized by geographical dispersion, cultural diversity and reliance on information and communication technology. The purpose of this research was to discover *how is group identification constructed and sustained in global virtual teams*. The sub-objectives aimed at shedding light on how the different aspects of global virtual teams, i.e. geographical dispersion, cultural diversity, and reliance on information and communication technology reflect on group identification. It was suggested that creating and sustaining group identification in global virtual teams can prove to be significantly more challenging than in traditional face to face operating teams due to the variety of dimensions within global virtual teams that can affect on group identification. However, it was deemed that group identification in global virtual teams does occur and managing it is feasible and to a large extent essential in order to support teams that are otherwise at the risk of suffering from the distance and isolation between its team members.

For the purpose of having a good understanding on the creation and sustaining of group identification and aspects of global virtual teams that can influence on identification in such teams, this study used a qualitative research method for conducting the empirical research. The method of the research consisted of the instrumental case study method with multiple cases and the objective was thus to explore, clarify and illuminate the phenomenon of group identification in global virtual teams, rather than the case teams themselves, and eventually to extend the current theory. The main focus was on primary data collected through 9 interviews that were conducted in virtual one-on-one meetings via Skype. The interviews were semi-structured and formed on the basis of the theoretical framework. The participants were selected through convenience sampling and typical sampling and chosen from two distinct but comparable virtual teams in Europe and in Asia. Both teams were divided into two locations each, Europe team consisting of locations in Finland and Poland, and Asian team of locations in Singapore and Australia.

The results of the empirical research largely supported the findings of extant literature but also produced further insights about group identification particularly in global virtual teams. It was concluded that group identification does occur in global virtual teams but is slower and more complex and demanding than in traditional teams. As a result, as long as the potential influence of the team dispersion, virtual

communication, and cultural diversity is identified and actively managed within global virtual teams, the risks to group identification can be reduced, and in fact, group identification can be stimulated and supported in globally distributed teams.

All in all, the aim of this study was accomplished by providing new inputs to the theoretical framework with the support of the findings that emerged from the empirical data. Moreover, based on the acquired empirical data, practical suggestions were made in order to assist managers and organisations in gaining the full benefit of group identification and in taking into consideration relevant issues for the creation and sustaining of group identification in global virtual teams.

REFERENCES

- Ashforth, B. E., Harrison, S. H., & Corley, K. G. (2008). Identification in organizations: An examination of four fundamental questions. *Journal of Management*, *34*(3), 325–374. <http://doi.org/10.1177/0149206308316059>
- Au, Y., & Marks, A. (2012). “Virtual teams are literally and metaphorically invisible”: Forging identity in culturally diverse virtual teams. *Employee Relations*, *34*(3), 271–287. <http://doi.org/10.1108/01425451211217707>
- Bartel, C. A., Wrzesniewski, A., & Wiesenfeld, B. M. (2012). Knowing Where You Stand: Physical Isolation, Perceived Respect, and Organizational Identification Among Virtual Employees. *Organization Science*, *23*(3), 743–757. <http://doi.org/10.1287/orsc.1110.0661>
- Bartels, J., Peters, O., de Jong, M., Pruyn, A., & van der Molen, M. (2010). Horizontal and vertical communication as determinants of professional and organisational identification. *Personnel Review*, *39*(2), 210–226. <http://doi.org/10.1108/00483481011017426>
- Bartels, J., Pruyn, A., de Jong, M., & Joustra, I. (2007). Multiple organizational identification levels and the impact of perceived external prestige and communication climate. *Journal of Organizational Behavior*, *28*(2), 173–190. <http://doi.org/10.1002/job.420>
- Bell, B. S., & Kozlowski, S. W. J. (2002). A typology of virtual teams: Implications for effective leadership. *Group & Organizations Management*, *27*(1), 14–49. <http://doi.org/10.1177/1059601102027001003>
- Bergiel, B. J., Bergiel, E. B., & Balsmeier, P. W. (2008). Nature of virtual teams: a summary of their advantages and disadvantages. *Management Research News*, *31*(2), 99–110. <http://doi.org/10.1108/01409170810846821>
- Chudoba, K. M., Wynn, E., Lu, M., & Watson-Manheim, M. B. (2005). How virtual are we? Measuring virtuality and understanding its impact in a global organization. *Information Systems Journal*, *15*(4), 279–306. <http://doi.org/10.1111/j.1365-2575.2005.00200.x>
- Creswell, J. W. (2009). *Research design : qualitative, quantitative, and mixed methods approaches* (3rd ed.). Los Angeles: SAGE.
- Desivilya, H. S., & Eizen, D. (2005). Conflict Management in Work Teams: the Role of Social Self-Efficacy and Group Identification. *International Journal of Conflict Management*, *16*(2), 183. <http://doi.org/10.1108/eb022928>
- Edwards, M. R. (2005). Organizational identification: A conceptual and operational review. *International Journal of Management Reviews Volume*, *7*(4), 207–230. <http://doi.org/10.1111/j.1468-2370.2005.00114.x>
- Edwards, M. R., & Peccei, R. (2010). Perceived Organizational Support, Organizational Identification, and Employee Outcomes. *Journal of Personnel Psychology*, *9*(1), 17–26. <http://doi.org/10.1027/1866-5888/a000007>

- Eisenbeiss, K. K., & Otten, S. (2008). When do employees identify? An analysis of cross-sectional and longitudinal predictors of training group and organizational identification. *Journal of Applied Social Psychology, 38*(8), 2132–2151. <http://doi.org/10.1111/j.1559-1816.2008.00384.x>
- Eriksson, P., & Kovalainen, A. (2008). *Qualitative methods in business research* (1st ed.). London: SAGE.
- Eskola, J., & Suoranta, J. (1998). *Johdatus laadulliseen tutkimukseen* (6th ed.). Jyväskylä: Vastapaino.
- Fay, M. J., & Kline, S. L. (2012). The Influence of Informal Communication on Organizational Identification and Commitment in the Context of High-Intensity Telecommuting. *Southern Communication Journal, 77*(1), 61–76. <http://doi.org/10.1080/1041794x.2011.582921>
- Fiol, C. M., & O'Connor, E. J. (2005). Identification in Face-to-Face, Hybrid, and Pure Virtual Teams: Untangling the Contradictions. *Organization Science, 16*(1), 19–32. <http://doi.org/10.1287/orsc.1040.0101>
- Fuller, J. B., Hester, K., Barnett, T., Frey, L., Relyea, C., & Beu, D. (2006). Perceived external prestige and internal respect: New insights into the organizational identification process. *Human Relations, 59*(6), 815–846. <http://doi.org/10.1177/0018726706067148>
- Gautam, T., Van Dick, R., & Wagner, U. (2004, December). Organizational identification and organizational commitment: Distinct aspects of two related concepts. *Asian Journal of Social Psychology*. <http://doi.org/10.1111/j.1467-839X.2004.00150.x>
- Germain, M.-L. (2011). Developing trust in virtual teams. *Performance Improvement Quarterly, 24*(3), 29–54. <http://doi.org/10.1002/piq.20119>
- Gertsen, M. C., & Zølner, M. (2014). Being a “modern Indian” in an offshore centre in Bangalore: cross-cultural contextualisation of organisational identification. *European Journal of International Management, 8*(2), 179. <http://doi.org/10.1504/EJIM.2014.059582>
- Ghuri, P. N., & Grønhaug, K. (2002). *Research methods in business studies: a practical guide* (2nd ed.). Harlow: Pearson Education, Limited.
- Gibson, C. B., & Gibbs, J. L. (2006). Unpacking the concept of virtuality: The effects of geographic dispersion, electronic dependence, dynamic structure, and national diversity on team innovation. *Administrative Science Quarterly, 51*(3), 451–495.
- Gilson, L. L., Maynard, M. T., Jones Young, N. C., Vartiainen, M., & Hakonen, M. (2015). Virtual Teams Research: 10 Years, 10 Themes, and 10 Opportunities. *Journal of Management, 41*(5), 1313–1337. <http://doi.org/10.1177/0149206314559946>
- Gonzalez, J. A., & Chakraborty, S. (2012). Image and similarity: an identity orientation perspective to organizational identification. *Leadership & Organization Development Journal, 33*(1), 51–65. <http://doi.org/10.1108/01437731211193115>

- Hakonen, M., & Lipponen, J. (2007). Antecedents and consequences of identification with virtual teams: Structural characteristics and justice concerns. *The Journal of E-Working*, 1(2), 137–153. Retrieved from <http://www.eworkjournal.org>
- Hakonen, M., & Lipponen, J. (2008). Procedural Justice and Identification with Virtual Teams: The Moderating Role of Face-to-Face Meetings and Geographical Dispersion. *Social Justice Research*, 21(2), 164–178.
- Hakonen, M., & Lipponen, J. (2009). It takes two to tango: The close interplay between trust and identification in predicting virtual team effectiveness. *The Journal of eWorking*, 3(1), 17–32.
- Han, S. J., & Beyerlein, M. (2016). Framing the Effects of Multinational Cultural Diversity on Virtual Team Processes. *Small Group Research*, 47(4), 351–383. <http://doi.org/10.1177/1046496416653480>
- Harris, G. E., & Cameron, J. E. (2005). Multiple Dimensions of Organizational Identification and Commitment ... *Canadian Journal of Behavioural Science*, 37(3), 159–169.
- Hassan, S. (2012, September 1). Employment attachment to workplace: A review of organizational and occupational identification and commitment. *International Journal of Organizational Theory and Behavior*. PrAcademics Press.
- He, H., Pham, H. Q., Baruch, Y., & Zhu, W. (2014). Perceived organizational support and organizational identification: Joint moderating effects of employee exchange ideology and employee investment. *International Journal of Human Resource Management*, 25(20), 2772–2795. <http://doi.org/10.1080/09585192.2014.908315>
- Henry, K. B., Arrow, H., & Carini, B. (1999). A tripartite model of group identification: Theory and measurement. *Small Group Research*, 30(5), 558–581. <http://doi.org/10.1177/104649649903000504>
- Jones, C., & Volpe, E. H. (2011). Organizational identification: Extending our understanding of social identities through social networks. *Journal of Organizational Behavior*, 32(3), 413–434. <http://doi.org/10.1002/job.694>
- Järvenpää, S. L., & Leidner, D. E. (1999). Communication and Trust in Global Virtual Teams. *Organization Science*, 10(6), 791–815. <http://doi.org/10.1287/orsc.10.6.791>
- Kachanoff, F. J., Ysseldyk, R., Taylor, D. M., de la Sablonnière, R., & Crush, J. (2016). The good, the bad and the central of group identification: Evidence of a U-shaped quadratic relation between in-group affect and identity centrality. *European Journal of Social Psychology*, 46(5), 563–580. <http://doi.org/10.1002/ejsp.2199>
- Kim, T., Chang, K., & Jae Ko, Y. (2010). Determinants of organisational identification and supportive intentions. *Journal of Marketing Management*, 26(5–6), 413–427. <http://doi.org/10.1080/02672570903485022>
- Kirkman, B. L., Rosen, B., Gibson, C. B., Tesluk, P. E., & McPherson, S. O. (2002). Five challenges to virtual team success: Lessons from Sabre, Inc. *Academy of Management Executive*, 16(3), 67–79.

- Lincoln, Y. S., & Guba, E. G. (1985). Establishing trustworthiness. In *Naturalistic Inquiry* (pp. 289–327). Beverly Hills, California: SAGE.
<http://doi.org/10.1177/1473325006070288>
- Lipponen, J., Helkama, K., Olkkonen, M.-E., & Juslin, M. (2005, March). Predicting the Different Profiles of Organizational Identification: A Case of Shipyard Subcontractors. *Journal of Occupational & Organizational Psychology*.
<http://doi.org/10.1348/096317904x22935>
- Liu, Y., Loi, R., & Lam, L. W. (2011). Linking organizational identification and employee performance in teams : the moderating role of team-member exchange. *The International Journal of Human Resource Management*, 22(15), 3187–3201.
- Mael, F., & Ashforth, B. E. (1992). Alumni and Their Alma Mater : A Partial Test of the Reformulated Model of Organizational Identification. *Journal of Organizational Behavior*, 13(2), 103–123. <http://doi.org/10.1002/job.4030130202>
- Marique, G., Stinglhamber, F., Desmette, D., & Goldoni, E. (2014). The relationship between workgroup identification and organizational identification: The moderating role of perceived similarities between targets. *Journal of Management and Organization*, 20(4), 485–507. <http://doi.org/10.1017/jmo.2014.41>
- Mathieu, J., & Zajac, D. (1990). A review and meta-analysis of the antecedents, correlates, and consequences of organizational commitment. *Psychological Bulletin*, 108(2), 171–194. <http://doi.org/10.1037/0033-2909.108.2.171>
- Merriam, S. B. (2014). *Qualitative Research : A Guide to Design and Implementation* (3rd ed.). Hoboken: Jossey-Bass.
- Meyer, J. P., Becker, T. E., & Van Dick, R. (2006). Social identities and commitments at work; toward an integrative model. *Journal of Organizational Behavior*, 27(5), 665–683. <http://doi.org/10.1002/job.383>
- Montoya-Weiss, M. M., Massey, A. P., & Song, M. (2001). Getting It Together: Temporal Coordination and Conflict Management in Global Virtual Teams. *The Academy of Management Journal*, 44(6), 1251. <http://doi.org/10.2307/3069399>
- Mukherjee, D., Hanlon, S. C., Kedia, B. L., & Srivastava, P. (2012). Organizational identification among global virtual team members. *Cross Cultural Management*, 19(4), 526–545. <http://doi.org/10.1108/13527601211270002>
- O’Leary, M. B., & Mortensen, M. (2010). Go (Con)figure: Subgroups, imbalance, and isolates in geographically dispersed teams. *Organization Science*, 21(1), 115–131. <http://doi.org/10.1287/orsc.1090.0434>
- Olkkonen, M.-E., & Lipponen, J. (2006). Relationships between organizational justice, identification with organization and work unit, and group-related outcomes. *Organizational Behavior and Human Decision Processes*, 100(2), 202–215. <http://doi.org/10.1016/j.obhdp.2005.08.007>
- Pratt, M.G. (1998). To be or not to be? Central questions in organisational identification. In Whetton, D.A. and Godfrey, P.C. (eds), *Identity in Organisations: Building Theory Through Conversations*. London: Sage, pp. 171–

207.

- Raghuram, S. (2011). Organizational identification among young software professionals in India. *The International Journal of Human Resource Management*, 22(18), 3913–3928. <http://doi.org/10.1080/09585192.2011.561224>
- Reade, C. (2001). Antecedents of organizational identification in multinational corporations: fostering psychological attachment to the local subsidiary and the global organization. *The International Journal of Human Resource Management*, 12(8), 1269–1291. <http://doi.org/10.1080/09585190110083794>
- Rhoades, L., & Eisenberger, R. (2002). Perceived organizational support: A review of the literature. *Journal of Applied Psychology*, 87(4), 698–714. <http://doi.org/10.1037//0021-9010.87.4.698>
- Riketta, M. (2005). Organizational identification: A meta-analysis. *Journal of Vocational Behavior*, 66(2), 358–384. <http://doi.org/10.1016/j.jvb.2004.05.005>
- Riketta, M., & Dick, R. Van. (2005). Foci of attachment in organizations: A meta-analytic comparison of the strength and correlates of workgroup versus organizational identification and commitment. *Journal of Vocational Behavior*, 67(3), 490–510. <http://doi.org/10.1016/j.jvb.2004.06.001>
- Riordan, C. M., & Weatherly, E. W. (1999). Defining and Measuring Employees' Identification with Their Work Groups. *Educational and Psychological Measurement*, 59(2), 310–324. <http://doi.org/10.1177/00131649921969866>
- Saarinen, J. (2016). *Managing global virtual teams*. School of Business, Helsinki.
- Saunders, M. N. K., Lewis, P., & Thornhill, A. (2003). *Research methods for business students* (3rd ed.). Harlow: Pearson Education, Limited.
- Scott, C. R. (2007). Communication and Social Identity Theory: Existing and Potential Connections in Organizational Identification Research. *Communication Studies*, 58(2), 123–138. <http://doi.org/10.1080/10510970701341063>
- Scott, C. R., Corman, S. R., & Cheney, G. (1998). Development of a Structural Model of Identification in the Organization. *Communication Theory*, 8(3), 298–336. <http://doi.org/10.1111/j.1468-2885.1998.tb00223.x>
- Shearman, M. S. (2013). American workers' organizational identification with a Japanese multinational manufacturer. *International Journal of Human Resource Management*, 24(10), 1968–1984. <http://doi.org/10.1080/09585192.2012.725066>
- Sivunen, A. (2006). Strengthening identification with the team in virtual teams: The leaders' perspective. *Group Decision and Negotiation*, 15(4), 345–366. <http://doi.org/10.1007/s10726-006-9046-6>
- Sivunen, A. (2007). *Vuorovaikutus, Viestintäteknologia ja Identifioituminen Hajautetuissa Tiimeissä*. *Humanities*. Jyväskylän yliopisto.
- Sivunen, A., & Valo, M. (2006). Team leaders' technology choice in virtual teams. *IEEE Transactions on Professional Communication*, 49(1), 57–68.

<http://doi.org/10.1109/TPC.2006.870458>

Sluss, D. M., & Ashforth, B. E. (2007). Relational identity and identification: Defining ourselves through work relationships. *Organization Science*, 32(1), 9–32.

Sluss, D. M., & Ashforth, B. E. (2008). How Relational and Organizational Identification Converge: Processes and Conditions. *Organization Science*, 19(6), 807–823. <http://doi.org/10.1287/orsc.1070.0349>

Smidts, A., Pruyn, A. T. H., & Van Riel, C. B. M. (2001). The impact of employee communication and perceived external prestige on organizational identification. *Academy of Management Journal*, 44(5), 1051–1062. <http://doi.org/10.2307/3069448>

Solansky, S. T. (2011). Team identification: a determining factor of performance. *Journal of Managerial Psychology*, 26(3), 247–258. <http://doi.org/10.1108/02683941111112677>

Staples, D. S., & Zhao, L. (2006). The effects of cultural diversity in virtual teams versus face-to-face teams. *Group Decision and Negotiation*, 15(4), 389–406. <http://doi.org/10.1007/s10726-006-9042-x>

Thatcher, S. M. B., & Zhu, X. (2006). Changing Identities in a Changing Workplace: Identification, Identity Enactment, Self-Verification, and Telecommuting. *Academy of Management Review*, 31(4), 1076–1088. <http://doi.org/10.5465/AMR.2006.22528174>

Ullrich, J., Wieseke, J., Christ, O., Schulze, M., & Van Dick, R. (2007, March). The identity-matching principle: Corporate and organizational identification in a franchising system. *British Journal of Management*. <http://doi.org/10.1111/j.1467-8551.2007.00524.x>

van Dick, R. (2001). Identification in organizational contexts: linking theory and research from social and organizational psychology. *International Journal of Management Reviews*, 3(4), 265–283. <http://doi.org/10.1111/1468-2370.00068>

Van Dick, R., Wagner, U., Stellmacher, J., & Christ, O. (2004). The utility of a broader conceptualization of organizational identification: Which aspects really matter? *Journal of Occupational and Organizational Psychology*, 77(2), 171–191. <http://doi.org/10.1348/096317904774202135>

van Dick, R., Wagner, U., Stellmacher, J., Christ, O., & Tissington, P. A. (2005). To Be(long) or Not to Be(long): Social Identification in Organizational Contexts. *Genetic, Social, and General Psychology Monographs*, 131(3), 189–218. <http://doi.org/10.3200/MONO.131.3.189-218>

Van Knippenberg, D., & Sleebos, E. (2006). Organizational Identification Versus Organizational Commitment: Self-Definition, Social Exchange, and Job Attitudes. *Journal of Organizational Behavior*, 27(5), 571–584.

van Knippenberg, D., & van Schie, E. C. M. (2000). Foci and correlates of organizational identification. *Journal of Occupational and Organizational Psychology*, 73(2), 137–147. <http://doi.org/10.1348/096317900166949>

- Vough, H. (2012). Not all identifications are created equal: Exploring employee accounts for workgroup, organizational, and professional identification. *Organization Science*, 23(3), 778–800. <http://doi.org/10.1287/orsc.1110.0654>
- Walumbwa, F. O., & Hartnell, C. A. (2011). Understanding transformational leadership-employee performance links: The role of relational identification and self-efficacy. *Journal of Occupational and Organizational Psychology*, 84(1), 153–172. <http://doi.org/10.1348/096317910X485818>
- Weber, M. S., & Kim, H. (2015). Virtuality, Technology Use, and Engagement Within Organizations. *Journal of Applied Communication Research*, 43(4), 385–407. <http://doi.org/10.1080/00909882.2015.1083604>
- Weimann, P., Hinz, C., Scott, E., & Pollock, M. (2010). Changing the Communication Culture of Distributed Teams in a World Where Communication is Neither Perfect nor Complete. *The Electronic Journal Information Systems Evaluation*, 13(2), 187–196.
- Wiesenfeld, B. M., Raghuram, S., & Garud, R. (1999). Communication Patterns as Determinants of Organizational Identification in a Virtual Organization. *Journal of Computer-Mediated Communication*, 10(6), 777–790. Retrieved from <http://onlinelibrary.wiley.com/doi/10.1111/j.1083-6101.1998.tb00081.x/full>
- Wiesenfeld, B. M., Raghuram, S., & Garud, R. (2001). Organizational identification among virtual workers: The role of need for affiliation and perceived work-based social support. *Journal of Management*, 27(2), 213–229. [http://doi.org/10.1016/S0149-2063\(00\)00096-9](http://doi.org/10.1016/S0149-2063(00)00096-9)
- Wilson, J. M., O’Leary, M. B., Metiu, A., & Jett, Q. R. (2008). Perceived proximity in virtual work: Explaining the paradox of far-but-close. *Organization Studies*, 29(7), 979–1002. <http://doi.org/10.1177/0170840607083105>

APPENDIX I OPERATIONALISATION TABLE

Research Question	Sub-questions	Theoretical Concepts	Interview themes	Interview question(s)		
How is group identification constructed and sustained in global virtual teams?	How is group identification experienced in a global virtual team?	<i>Group identification</i>	Membership in a specific group <ul style="list-style-type: none"> - Definition of the team - Similarity of defining attributes - Belongingness to the team 	2.1, 2.2 2.3, 2.4, 4.1 5.2		
			Emotional and psychological investment <ul style="list-style-type: none"> - Feelings about the team and satisfaction in the team - Commitment to the team - Team cohesion, togetherness, team spirit 	2.5, 6.1 5.3 5.1		
			Value connotations and team dynamics <ul style="list-style-type: none"> - Perceived organisational support - Perceived fairness of procedures - Perceived internal respect - Trust in the team - Social networks and interaction 	4.4 4.3 4.2 4.5 3.1, 3.2, 3.3, 5.1		
			Geographic and temporal dispersion <ul style="list-style-type: none"> - Experiences about geographical and temporal dispersion and their impact on the team 	7.2		
			Use of information and communication technology <ul style="list-style-type: none"> - Experiences about virtual communication and the use of ICT and their impact on the team 	7.3		
			Cultural and linguistic diversity <ul style="list-style-type: none"> - Experiences about cultural and linguistic diversity and their impact on the team 	7.4		
			Differences to traditional teams <ul style="list-style-type: none"> - Experiences about the differences between traditional teams and global virtual teams 	7.1, 8.1		
			How does geographical dispersion reflect on group identification?	<i>Global virtual teams</i>	Geographic and temporal dispersion <ul style="list-style-type: none"> - Experiences about geographical and temporal dispersion and their impact on the team 	7.2
			How does virtual interaction reflect on group identification?		Use of information and communication technology <ul style="list-style-type: none"> - Experiences about virtual communication and the use of ICT and their impact on the team 	7.3
			How does cultural diversity reflect on group identification?		Cultural and linguistic diversity <ul style="list-style-type: none"> - Experiences about cultural and linguistic diversity and their impact on the team 	7.4
			Differences to traditional teams <ul style="list-style-type: none"> - Experiences about the differences between traditional teams and global virtual teams 	7.1, 8.1		

APPENDIX II INTERVIEW QUESTIONS

1. Background information

- 1.1 Age, sex, nationality
- 1.2 Industry, department, team
- 1.3 Previous experiences with working in GVTs

2. The team

- 2.1 How would you define your team
 - Who is part of your team
- 2.2 How would you describe your team
 - Key values / goals / roles characteristic to the team
 - What is your role in the team
- 2.3 How is your team different from other teams
- 2.4 How would you describe or define yourself (values, goals, beliefs, skills, what is important to you etc.) personally
- 2.5 How well in your opinion do you think these are matched in your team?
- 2.6 How do you feel about your team
 - What are the best aspects of your team?
 - How do they impact on the team functioning?
 - What are the most demanding challenges in your team
 - How do they impact on the team functioning?
 - How do they impact your relationship to the team?
 - How do you see your team in comparison to other teams (cohesion/functioning)

3. Interaction within the team

- 3.1 Frequency and quality of interaction
 - Please describe your “normal” day at work, how and how often do you keep in touch with your virtual and your local colleagues and on what kind of matters?
- 3.2. How does your team collaborate?
- 3.3. How would you describe the communication climate in your team?

4. Team dynamics

- 4.1 Similarity/commonality among team members
 - Do you feel you have something in common with your team or team members, how does it show?
- 4.2 Respect
 - What is the role of respect in the team, how does it show?
 - How are people rewarded or is their good job noted in the team, does it show?
- 4.3 Fairness of procedures
 - How are decisions made in the team?
 - How fairly in your opinion members of the team are treated?
- 4.4 Workplace support
 - What is the role of workplace support in the team, how does it show?

4.5 Trust

- What is the role of trust in team, how does it show?

5. Identification within the team

5.1 Team cohesion, togetherness, team spirit

- How would you describe the team cohesion, togetherness or the team spirit in your team?
- How cohesive is your team in comparison to other teams?

5.2 Belongingness to the team

- How strongly do you feel part of this team?
- How strongly do you think your team members feel part of this team?

5.3 Commitment

- How would you define commitment?
- How would you describe commitment in the team?
- How would you describe your commitment to the team?
- How would you describe the commitment of others to the team?

6. Satisfaction

6.1 Could you describe your satisfaction with your work (position/job), the team, the communication in the team?

- How would you describe the satisfaction of other team members?

7. Global virtual team

7.1 You are a global virtual team – how does this show in your team?

7.2 What are your experiences about the geographical and temporal dispersion of this team?

- In what ways do you think geographical and temporal dispersion impact on the team (functioning / cohesion / satisfaction / commitment etc.)

7.3 What are your experiences about virtual communication and the use of ICT in this team?

- What kind of ICT is used in the team?
- In what ways do you think virtual communication and the use of ICT impact on the team (functioning / cohesion / satisfaction / commitment etc.)

7.4 What are your experiences about cultural diversity in this team?

- In what ways do you think cultural diversity impacts on the team (functioning / cohesion / satisfaction / commitment etc.)

8. Differences to traditional teams

8.1 In your opinion, how would the team be different if it was a completely F2F-operating team?

9. Additional comments from the interviewee

9.1 Is there anything you would like to add?