Conflicts in Workplace in Technology-Mediated Communication

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Abstract

The aim of this study was to describe employees' perceptions of conflicts in workplaces when technology-mediated communication (TMC) is utilized. Through participants' perceptions, this study helps to explain the phenomenon of conflict in the contexts of workplace and technology-mediated communication. This research sought answers to the origins (causes), consequences (effects), and final results conflicts have in workplaces when utilizing technology-mediated communication as understanding conflicts and their management is significant to workplaces and their employees. As various individuals spend several hours in workplaces on a daily basis, it is important to understand conflicts and their management.

The research was conducted by collecting theme interviews of nine different participants and theory-driven qualitative content analysis was used to analyze the collected data. All the participants utilized TMC in their daily work and the role of TMC is pivotal in their workplaces.

Based on the results of this study, causes and effects of conflicts are seen in individual, social interaction, work environmental and technology-mediated levels. Conflict types that caused and were seen to be the reasons for conflicts in TMC were on relational, task, and process levels. As for the effects of conflicts, in workplaces' TMC only relational conflict types were seen as effects. Relational conflicts, such as disagreements over personal issues, are not directly work-related.

This study shows that both kinds of conflicts, positive and negative, emerge in workplaces. Even though negative effects of relational conflicts were relatively wide, it is significant that some of the relational conflicts ended with positive results in the context of technology-mediated workplaces. This study also shows, conflicts, especially relational ones, are born in employees' overall social interaction and they affect social interaction in the workplace, and especially technology-mediated interaction.

Conflicts had different kinds of final results, outcomes: escalation, de-escalation, and stabilization. Conflict management styles that appeared in conflict escalation are avoiding, dominating, and passive-aggressive. The management styles that were used in de-escalation are third-party help, integrating, and emotional expression, and in conflict stabilization avoiding and obliging. The final results of conflicts were seen in workplaces' social interaction and in issues that are related to work environmental and technology-mediated factors.

The findings of this study show, social interaction via communication technology and especially via e-mail is wholly, or in part, common and remains a surprisingly popular conflict cause. E-mail is also a medium wherein effects of technology-mediated conflicts are seen. Additionally, the effects of conflicts' are also seen in social media, video conversations, and instant messages.

Results of this study help to understand conflicts that occur in workplaces' technology-mediated communication. Based on these results, it is possible to anticipate the kinds of conflicts that occur in technology-mediated communication and to utilize their different kinds of management styles.

Asiasanat – Keywords Conflict types, Conflict cycle, Conflict management, Technology-mediated communication, Work life, Communication
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Tiivistelmä

Tämän tutkielman tavoitteena oli kuvata työntekijöiden havaintoja konflikteista, jotka ilmenivät työpaikkojen teknologiavälitteisessä vuorovaikutuksessa. Työntekijöiden havaintoihin pohjaten tutkielma pyrki kasvattamaan ymmärrystä työelämässä ja teknologiavälitteisessä vuorovaikutuksessa ilmenevistä konflikteista etsimällä vastauksia siihen, millaisia syitä, seurauksia ja lopputuloksia konflikteilla on työyhteisöjen teknologiavälitteisessä vuorovaikutuksessa. Konfliktien ja niiden hallintakeinojen ymmärtäminen on tärkeää työyhteisöille ja niissä toimiville työyhteisön jäsenille.

Tutkielman menetelmänä käytettiin teoriasidonnaista laadullista sisällönanalyysiä ja aineisto kerättiin yhdeksällä teemahaastattelulla. Kaikkien haastateltavien työssä käytettiin teknologiavälitteistä vuorovaikutusta päivittäin ja teknologiavälitteisen viestinnän roolia pidettiin heidän työpaikoillaan keskeisenä.

Tutkielman tulosten perusteella näyttää siltä, että konfliktien syitä ja seurauksia selittivät yksilötekijät, vuorovaikutustekijät, työympäristötekijät sekä teknologiavälitteiset tekijät. Konflikteja aiheutti ja niiden synä nähtiin työyhteisön teknologiavälitteisessä vuorovaikutuksessa suhde-, tehtävä-, ja prosessitasoilla ilmenneitä konflikteja. Konfliktien seuraukset näkyivät puolestaan työyhteisön teknologiavälitteisessä vuorovaikutuksessa suhdetason konflikteina, joita ovat muun muassa erimielisyydet henkilökohtaisella tasolla sekä töihin kuulumattomissa asioissa.

Tuloksista ilmenee, että työpaikoilla on sekä positiivisia että negatiivisia konflikteja. Merkityksellistä on, että vaikka suhdekonflikteilla oli suhteellisen paljon kielteisiä seurauksia työpaikkojen teknologiavälitteisessä vuorovaikutuksessa, kuitenkin osalla suhdekonflikteista oli myös myönteisiä seurauksia. Tutkielman tulokset osoittavat, että konfliktit ja erityisesti suhdekonfliktit syntyvät työntekijöiden yleisessä vuorovaikutuksessa. Konfliktien koetaan vaikuttavan työpaikan vuorovaikutussuhteisiin, erityisesti teknologiavälitteisen vuorovaikutuksen osalta.

Konflikteilla oli erilaisia lopputuloksia: konfliktitilanteet joko eskaloituivat, purkautuivat tai ne olivat jääneet stabiiliin tilaan. Eskaloituneissa konfliktitilanteissa konfliktinhallintatyyleinä käytettiin välttelyä, myönnyttelyä ja passiivis-aggressiivisuutta. Purkautuneissa konfliktitilanteissa käytettiin kolmannen osapuolen apua, integrointia ja tunteiden ilmaisua. Stabiileissa konfliktitilanteissa konfliktinhallinnan keinoina käytettiin välttelyä ja myönnyttelyä. Konfliktien lopputulokset näkyivät työyhteisön vuorovaikutuksessa ja työympäristöön sekä teknologiavälitteisyyteen liittyvissä asioissa.

Haastateltavien näkemyksien perusteella myös viestintäteknologian avulla, erityisesti sähköpostissa, käyty vuorovaikutus aiheutti konflikteja tai oli osa syy niiden syntymiseen. Lisäksi voidaan todeta konfliktien seurausten olevan nähtävissä sähköposteissa, sosiaalisessa mediassa, videokeskusteluissa sekä pikaviestimissä.

Tutkielman tulokset auttavat ymmärtämään työpaikkojen teknologiavälitteisessä vuorovaikutuksessa ilmeneviä konflikteja. Tulosten perusteella voidaan ennakoida työyhteisöjen teknologiavälitteisen vuorovaikutuksen konflikteja ja hyödyntää niiden erilaisia hallintatapoja.

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1 INTRODUCTION

Work life is valued in our society, and its position is significant. Work is a big part of our daily lives as it maintains one's identity and self-esteem, and nearly half of Finns (49 %) see it that way (EVA:n arvo- ja asennetutkimus 2010, 35). Work is something that occupies a considerable share of our time on a weekly basis and where some relationships with co-workers, colleagues, and superiors are inevitably built. The phenomenon of conflict also takes place in daily social interactions. Conflict is seen as a natural occurrence that routinely impacts both personal and work relationships (Meluch & Walter 2012, 31), so, conflicts exist in workplaces as well.

Communication technology is used widely in workplaces, and different kinds of communication media create opportunities for conflicts to emerge. According to D'Urso and Pierce's (2009) study on communication technology in the workplace, individuals use internet and e-mail over other types of available technology. This means textual based communication is preferred though video chat and video conferencing are available, which means textual relationships rely on the receiver's interpretation of the message (D'Urso & Pierce 2009, 1–2). As the social interaction relies mostly on interpretation when messages are sent via a textual based medium, the intended meaning of the message from the sender may be misinterpreted by the receiver, creating conflict.

Employees may influence one another how vital some attributes and expectations about communication technology are, which affects how people make decisions adopting technology (Vishwanath, 2009), and other peoples' emotions, consensus, and automatic behavior are important in explaining the ongoing use of communication technology (Ortiz de Guinea & Markus, 2009). As some employees might influence others, one's emotions may guide to choose such communication technology that is unfavorable to some and, therefore, misunderstandings, and different meanings can easily collide.

Managing relationships in a work environment can be challenging, and conflicts are something most of us need to deal at some point in our careers. Conflicts are seen in face-to-face communication as well as in technology-mediated communication (TMC). Conflicts emerge in the old-fashioned offices as well as in distributed teams. Therefore, it is crucial to understand conflicts and their management. The phenomenon of conflict in the context of work life and technology-mediated communication is vital in the field of communication studies and to work life in general.

Earlier studies in the field of conflict research have focused on examining the differences between face-to-face and technology-mediated communication (Baltes et al., 2002; Lira et al., 2007; Meluch et al., 2012; Wilson et al., 2006). Conflict research has also focused on conflict management and conflict management styles in face-to-face and technology-mediated communication (Massey et al., 2001; Meluch et al., 2012; Olaniran, 2010). There are also studies of conflicts types (De Dreu & Weingart, 2003; Jehn 1995, 1997; Jehn & Mannix, 2001), conflict cycles (Wall & Callister, 1995), and conflict types and cycles in teams (Maltarich et al., 2016). There is also some research that focuses on the various cognitive, affective, and behavioral processes that can occur in conflicts (Barki & Hartwick, 2004) but, there is little, if any, such research that focuses on different phases of conflict processes in a conflict cycle and conflict types and management styles in the context of TMC in workplaces.

This study views the processes of conflicts using Wall and Callister's (1995) model of conflict cycle and studies of different conflict types (see, e.g., Jehn 1995, 1997), and conflict management styles (see, e.g., Rahim, 1992; Ting-Toomey et al., 2001). The aim of this study is approached by viewing origins (causes), consequences (effects), and final results, i.e., outcomes of conflicts in workplaces' technology-mediated communication. Through participants' perceptions, it is possible to understand the phenomenon of technology-mediated conflict in the context of the workplace.

The research was conducted using theory-driven qualitative content analysis. Data was collected by theme interviews, and altogether nine respondents were interviewed to gain information about technology-mediated conflicts in workplaces. Each participant utilized TMC in their daily work and TMC is pivotal in their workplaces.

Based on the current study, it will be possible to better understand which kinds of conflicts occur in workplaces' technology-mediated communication, and by which means there are possibilities to manage the already occurred conflict situations.

2 CONFLICT IN WORKPLACE

2.1 Definition of conflict and conflict types

Definition of conflict. The phenomenon of conflict has been widely researched, and different theories and models of conflicts have been developed through past decades (Hofstede, 1984; Jehn 1995, 1997; Jehn & Mannix, 2001; Rahim 1983, 1992; Ting-Toomey et al., 2001; Wall & Callister, 1995). As there are various studies of conflicts and various researchers, there are also different definitions of conflicts that are used.

Barki and Hartwick (2004, 236) conceptualized interpersonal conflicts in organizational settings: there are cognitive (disagreements), affective (negative emotions), and behavioral (interferences) aspects in conflicts that can be focused on a task or relational issues. So, conflicts can influence our thoughts; we can have a disagreement with others about what should be done in a task or how to do a task, or, we might disagree with other's personal views or values. Conflicts can influence the way we feel; we might have anger or other negative emotions about what should be done in a task or how it should be done, or, negative emotions can be directed to other individuals. The way we behave might also be influenced by conflicts; we might be preventing others from doing what they think should be done in their tasks or how their tasks should be done, or, we might prevent others doing things that are unrelated to work.

Conflicts can be seen to affect individuals' cognitive, affective, and behavioral aspects of life in task and relational levels. Different authors take some these aspects into account, but they all have they own viewpoints of how to approach the question: what is conflict?

Ting-Toomey (1985, 72) sees conflict "as a form of intense interpersonal and/or intrapersonal dissonance (tension or antagonism) between two or more interdependent parties based on

incompatible goals, needs, desires, values, beliefs/or attitudes". Ting-Toomey (1994, 360), later defined conflict as "perceived and/or actual incompatibility of values, expectations, processes, or outcomes between two or more parties over substantive and/or relational issues". According to Oetzel et al. (2000, 398), "the conflict process produces antagonistic sentiments between the parties over an issue, relationship, or the process itself." Littlejohn and Domenici (2001, 3–4) noted conflicts occur when differences arise among people and they get in the way in personal and/or work life. Some similarities with the previous definitions are shared by Wall and Callister (1995, 517) who conceptualized "conflict is a process in which one party perceives that its interests are being opposed or negatively affected by another party". According to Holmes (1992), conflicts to have multiple, cyclical phases that are often skipped or gone through multiple times in dyads and groups.

The previous definitions of conflict have some commonalities. Each of these above-mentioned definitions of conflicts, except Holmes (1992), shows conflict has opposing disputants that have opposing viewpoints. Holmes' (1992) definition of conflict is some of monotonous as conflicts are defined to be cyclical processes, and it does not take a stand, e.g., are there ongoing disagreements or negative emotions. Excluding Littlejohn and Domenici (2001), the other researchers see conflict is a process. Then again, Littlejohn and Domenici (2001) are the only ones to point out that conflicts occur both in personal and in work life. Affective side of conflicts, negative emotions such as antagonism, is defined by Oetzel et al. (2000) and Ting-Toomey (1985). Cognitive aspects, disagreements, of conflicts also are pointed out as values and beliefs are seen to be part of conflicts by Ting-Toomey (1985;1994), Littlejohn and Domenici (2001), and Wall and Callister (1995). The behavioral aspect of conflicts, such interference, is not directly shown in any of the previous definitions of conflicts.

There are various viewpoints of what is seen to be a conflict, and, therefore, the definitions of conflicts vary from another, and there is not just one accurate way of defining. Some emphasize the process aspect of conflict and some the contradiction of disputants objective. There is also distinction is there a disagreement over tasks or relational issues. This current study adopts the viewpoint that in conflict, contradictions are brought out in a cyclical process over perceived and/or actual issues and that it occurs in intrapersonal, or interpersonal level between two or more interdependent parties, and it is based on incompatible goals, needs,

desires, values, beliefs, expectations, or attitudes. In this study, the process aspect of conflict is highlighted as it views different phases of conflict processes.

The nature of conflict. Meluch and Walter (2012, 31) see conflicts are part of our daily life: Conflict is a natural occurrence that routinely impacts both personal and work relationships. Some studies argue workplace conflict is a more common occurrence than other types of conflict (see Levin et al. 2016, x). As conflicts by their nature are part of working life, they impact it. According to Amason and Schweiger (1994), conflict in all its forms can create an uncomfortable working environment, decrease individuals' work motivation, and satisfaction towards work. Other studies show the effects of conflicts depend on the conflict type: whether the conflict is relational, work or process related. The same studies argue that a positive outcome is most prominently reached by means of task conflicts that can have positive results on work performance (Jehn, 1997; Maltarich et al., 2016.) Rahim (2001, 145) also points out that the effect of conflict depends on what caused the conflicts. Also, different cultural values, assumptions of conflicts, and miscommunication between cultural parties can escalate into a conflict situation (Ting-Toomey & Kurogi 1998, 189). Therefore, different types of conflicts, different situations, and cultural differences can be seen as causes of conflicts that have positive or negative results in workplaces.

Conflict types. Jehn (1995, 1997) categorizes conflicts found in organizational settings into three different types: *process, task*, and *relational conflicts*. Process conflict concerns disagreements over how the task should be accomplished, how the responsibilities are distributed, and how tasks are delegated. Task, or cognitive, conflict's disagreement rises over issues that are work-related and focused on content-related issues. Relational, or relationship or emotional, conflict is the perception of interpersonal incompatibility, involving mutual dislike that is not work-related, often includes tension and hostility, and it is over interpersonal issues. Reasons for relational conflicts can be also political views, hobbies, clothing preferences, and gossiping. (Hollingshead & Poole 2005, 144; Jehn 1997, 530–532, 552–554.)

Amongst these three types of conflicts, relational conflicts have specific negative effects: they can be responsible for increased turnover, high rates of absenteeism, decreased satisfaction

towards work, low levels of perceived performance, poor objectivity, and low commitment (Amason, 1996; Jehn, 1995). Process conflicts, as well as relational, are seen to be harmful to job satisfaction and work performance (Jehn, 1997). Task conflicts are seen to be positive or negative by their nature. Task conflicts are seen to be positive on moderate levels and have been shown to be beneficial to different kinds of group performance. (Jehn, 1997; Jehn & Mannix, 2001.) On the contrary, task conflicts, as well as relational conflicts can have a significant negative effect on performance in the end of a team's life-cycle when conflict management is not cooperative but competitive (Maltarich et al., 2016). De Dreu and Weingart's (2003) study shows task conflict and relational conflicts are equally disruptive for team performance.

These three types of conflicts occur on their own, but they can be closely connected to each other. Relational conflict can influence the work task and distract team members from the task (Griffith et al., 2003). Task conflict can increase team performance, have a positive impact if it leads to better understanding of the task issue (Simons & Petersons, 2000). Process conflict, on the contrary, could increase time spent on decision making how to accomplish the work task and at the same time slow down the working phase (Jehn, 1997).

As previous research on conflict types shows, conflicts have positive and negative effects. Previous studies show dissenting results whether task conflict is positive or negative, but also show, relational conflict mainly has negative effects. Especially, as relational conflicts often result in negative effects, it is important to understand them. Relational conflicts can lower job satisfaction and increase turnover, which are alarming findings when considered the context of work life. Conflicts are part of people's everyday life, and, therefore, are highly involved in workplaces as well. To better understand employees' perception of work life conflicts, this study uses these three conflict types, to explore and categorize workplace conflicts.

2.2 Conflict management styles

Conflict management styles. People manage conflicts differently. Also, the same person can manage conflicts in various ways depending on the situation as the person may have several conflict management styles. According to Ting-Toomey (1988, 214–220), individuals manage conflicts in different ways because they have different levels of face concerns, different backgrounds, and different situational factors to consider. As a concept, conflict style refers to a person's common tendencies, modes of patterned responses to conflict in different opposing interactive situations (Ting-Toomey 1997, 136–139). Previous studies of conflict management have been done in the contexts of face-to-face and technology-mediated communication (Massey et al., 2001; Meluch et al., 2012; Olaniran, 2010).

Rahim (1983, 1992) differentiated the styles of handling interpersonal conflict on two conceptual dimensions: concern for self and concern for others. The first dimension describes the degree, high or low, to which a person satisfies one's own concern, and the second dimension describes the degree, high or low, to which person satisfies the concern of others. Rahim also points out that these dimensions portray the motivational orientation of a given individual during a conflict. These two dimensions combine five different styles of handling interpersonal conflict: *integrating, compromising, dominating, obliging*, and *avoiding*. (Rahim 1992, 28.)

Integrating style indicates high concern for self and others. Integrating means collaborating and solving problems with other parties. Openness, exchange of information, and examination of differences to reach a solution that satisfies both parties are indicators of integrating style. (Rahim 1992, 28.)

Compromising style indicates intermediate concern for self and others. Compromising means sharing, or give-or-take, so that both parties give up something to achieve mutual decision that all accept. Compromising can also be splitting the difference or seeking quick, middle-ground position. (Rahim 1992, 30.)

Dominating style indicates high concern for self and low for others. Dominating means most of the time same as competing, and the style has been identified with a win-lose orientation or forced need to win one's position. When dominating one goes all the way to achieve one's objective, which often results in ignored needs and expectations of the other party, and the win can come at any cost. Dominating can also mean standing up for one's rights or defending one's position when believed to be right. A dominating supervisor is likely to use one's position and power to get one's will without taking subordinates into account. Without formal position power, one might try to wield power by bringing in superiors or deceit. (Rahim 1992, 29.)

Obliging style indicates low concern for self and high on others and is also known as accommodating. In this style, one tries to play down the differences and emphasize commonalities so that the other party would feel satisfied. At the same time, one sacrifices oneself and it may come in the form of selfless generosity, charity or one's obedience to another person's order. Obliging person puts one's own concerns aside to satisfy concerns of others. (Rahim 1992, 29.) " Such an individual is like a 'conflict absorber', that is, a person whose reaction to a perceived hostile act on the part of another has low hostility or even positive friendliness" (Boulding 1962, 171, according to Rahim 1992, 29).

Avoiding style indicates low concern for self and others and is also known as suppression. In this style, one might withdraw, step aside, or 'buck-pass' in situations. Avoiding can also mean postponing issues to wait better times or just withdrawing from an unpleasant, threatening situation. By avoiding, a person does not satisfy anyone's needs and has some unconcerned attitude toward the issues or parties of the conflict, and a person might not even acknowledge conflict exists, and it should be dealt with. (Rahim 1992, 29–30.) Also, studies show conflict avoidance is in general seen to be harmful to relationships and especially when some specific topics are being avoided (Sargent, 2002).

To differentiate these styles from each other, one could reason that when compromising one gives up more than a dominating party but less than an obliging party. The compromising

party also addresses issues more directly than a person who is avoiding but does not explore issues as much as an integrating person. All of these five styles can be used to handle interpersonal conflict in an appropriate manner based on the situation. It can be generalized, to some extent, that integrating and compromising styles are effective in dealing with conflict with strategic or complex issues. Avoiding, obliging, and dominating styles are effective in conflicts involving tactical, daily, or routine problems. (Rahim 1992, 30.) On the other hand, some western conflict management literature sees avoiding and obliging as being negatively disengaged (Ting-Toomey et al. 2001, 88).

 Oetzel et al. (2000) and Ting-Toomey et al. (2001) expanded the model of conflict styles to cover altogether eight styles to account for ethnic differences that may occur in conflict. The model includes Rahim's original five styles (integrating, compromising, dominating, obliging, and avoiding) along with their own three styles: *emotional expression*, *third-party help, and neglect/passive-aggression.* In emotional expression (high concern for self and moderate to others), a person's own emotions guide communication behaviors during a conflict. In third-party help (moderate concern for self and moderate concern to others), an outsider is used to mediate the conflict. In neglect (high concern for self and moderate concern for others), a person is using passive-aggressive, indirect responses to threaten the image of someone else. A person's conflict styles provide an overall picture of a communication orientation that person has toward conflict as conflict style is a combination of traits, e.g., background, culture, personality and states, i.e., situation. (Ting-Toomey et al. 2001, 88–89.)

Even though, Rahim (1992) sees some generalized categories and that some conflict management styles are better used in particular kind of situations, and, Ting-Toomey (2001) sees some management styles are negatively connected, I would highlight that every conflict situation is different. Each party involved in a conflict brings different management styles and ways of communicating, and that at least beforehand, it would be hard to create one's own strategies based on solely Rahim and Ting-Toomey's categorizations. It requires insight and knowledge to use different conflict styles elaborately in different contexts, situations, and with different people in workplaces. One may learn which styles lead to wanted outcomes in one's own working environment and which ones are good to avoid when needed, or, one should keep an open mind and take every situation as it comes and try to manage it the best possible ways.

Some of the previous studies of conflict management styles derive from intercultural research (See Oommen, 2017; Hofstede, 1984; Ting-Toomey et al., 2001), but the styles can be recognized to exist all around the world. To the same degree, Finnish people, for example, avoid, dominate, oblige or are passive-aggressive. Therefore, these eight conflict management styles are seen to be also valid to use in the current study that examines Finnish companies' employees' perceptions of conflicts and employees' use of conflict management styles in workplaces' technology-mediated communication. This study utilizes previous studies of conflict management styles to view how they are shown in the current study. The analysis is based on this study's results, shows which styles were perceived in different conflict situations in workplaces' technology-mediated communication.

According to Ting-Toomey et al. (2001, 89) and Oetzel et al. (2000) their three styles, emotional expression, third-party help, and neglect, are qualitatively different from Rahim's original five styles, but they see them fit within the framework of other- and self-concern. Together these two ways of categorizing conflict management styles possess a wide range of styles to point out different ways of conflict management. For purposes of this study, these styles provide a sufficiently wide framework to point out various styles from another, and these styles themselves are varied, making it easy to recognize and point out which particular style is in use.

2.3 Conflict cycle

The current study focuses mostly on interpersonal level conflicts, where one comes into conflict with others. According to Wall and Callister (1995, 516), all kinds of conflicts share a generic format, a conflict cycle: *Causes, Core process, Effects,* and *Escalation/De-escalation*, which are interconnected. All social processes, including conflicts, have causes and core process which have results and effects. These effects cycle back to causes creating a cycle which can take place in any context, also in work environments. This cycle can circulate multiple times. The model of conflict cycle (see Model 1) provided by Wall and Callister is a

general one, and it illustrates how the major pieces of a conflict 'puzzle' go together. The following model is adapted from Wall and Callister (1995, 516).
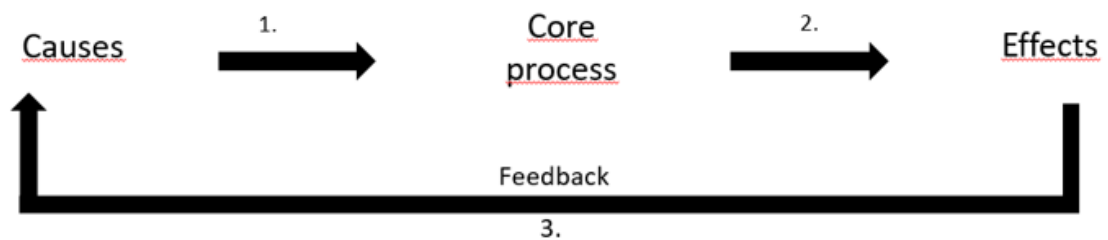
MODEL 1 Conflict cycle

This study uses the model of conflict cycle as its framework, but it utilizes only some parts of the process, so, this study does not have a look at every phase of the entire cycle and its iterations. The current study investigates particularly the processes of causes and effects of conflicts and different results of the conflicts that occur in escalations, de-escalations, and stabilizations of conflicts.

According to Wall and Callister, the selected model agrees with Blalock's (1989, 17–24) viewpoint that when conflicts are described, and analysis of them is done in reasonably a common framework, knowledge accumulates systematically. This model was chosen for the current study for the same reasons as Wall and Callister had. As in this study, conflict is seen as a cyclical process, which phases accumulate systematically, and, these conflict processes are analyzed in a common framework.

Causes of conflicts. There is some evidence (Baron, 1989) that one's characteristics can generate conflicts. Because conflict involves at least two parties, some of the causes come from each party's characteristics. Individual characteristics are defined as one's personality, values, goals, commitment to position, stress, anger, and desire for autonomy. (Wall & Callister 1995, 518 - 519.)

There are numerous interpersonal factors that cause conflicts. Perceptual factors include: misunderstanding, distrust of others, other's perceived high goals, and other's behavior seen as harmful, etc. Communications factors are: distortions and misunderstandings, hostility, intended distributive behavior, dislikes, high goals, and insults. Behavior factors contain: power struggles, low interaction, blocking party's goals, and reduction of other's outcomes. Structure factors include: closeness, power imbalances, status differences, distributive relationship, and creation of interdependence, and, previous interaction factors are: past history of conflict, past failures to reach agreement, and locked-in conflict behaviors. (Wall & Callister 1995, 518–522.)

Many times parties start the conflict because of over some issues they have. Issues come in different sizes and can be complex or simple, there can be multiple or few issues, issues can be vague or clear, or they can be based on principle. Some issues can also make conflicts easier to solve: complex issues can be divided into a number of smaller ones, or multiple issues can also offer face-saving exit opportunities and opportunities for the parties to compromise. (Wall & Callister 1995, 518–523.)

In some conflict situations, causes for conflict might be more complex involving more than one cause. Combining individual characteristics, interpersonal factors, and issues all contribute to various reasons for a conflict to emerge. For example, one party might feel there is distrust about multiple issues, while others think personal values played a role when a conflict began to develop, and the causes of the conflict were born.

The core process. Wall and Callister raise the question: what is conflict's core process itself? According to Wall and Callister (1995, 523), the most common answer to the question is: "it is the interpersonal behavior in which one or both disputants oppose the counterpart's interests/goals". Another reason is bit more cognitively oriented. A party realizes that another is negatively affecting, or tries to attend negatively to one's position. After deciding how to deal with their own and the other's emotions, the party makes decision and acts upon it. After this, the other goes through one's own thoughts, emotions and reacts to the party's behavior.

(Thomas, 1992, cited in Wall & Callister 1995, 523). Basically, it is the middle point of the conflict event when things start to 'get heated', and all parties go through their thoughts and express their dissenting views, emotions, values to each other.

Effects of conflicts. Wall and Callister (1995) see that effects can be categorized similar to causes of conflict. Particularly, there are effects on individuals, on the interpersonal relationships or communications, behaviors, structure, and issues. But what differs is effects take resolutions and residues of the conflict also into consideration.

Conflicts have effects on individuals, including: anger, hostility, frustration, tension, stress, guilt, exhilaration, low job satisfaction, reduced motivation and productivity, and loss of face or embarrassment. (Wall & Callister 1995, 523–527.) Specifically, stress and anger are both seen to be causes and effects of conflict on individuals.

As in causes of conflict, there are various factors that affect the relationship between the disputants. In interpersonal relationships, the opponent of conflict is perceived as blocking a person's goals and therefore creating the conflict and quickly generating negative emotions. These interpersonal perceptual factors for conflicts are: distrust, misunderstandings, perceiving the other's behavior as harmful, an inability to see other's perspective, questioning of other's intentions, changed attitude towards other, and changes in relative amounts of power. (Wall & Callister 1995, 523–527.) There are also effects on communications, and they are seen in changes in the quality of communication and changes in the amount of communication taking place. (Wall & Callister 1995, 523–527.)

The effects of conflict on behavior are striking. Interaction between conflicting parties is the most obvious and visible aspect of conflict. Behavioral effects seen in conflict are: avoid other, try to save face, emotional venting, aggression, turnover, absenteeism, biased or selective perceptions, increased commitment to a position, creativity, challenge to a status quo, greater awareness of problems, personal development, and learning. (Wall & Callister 1995, 523–527.)

Structure has effects that can have an influence on individual, group, and organizational level, and for many reasons, there can be decreased interdependence and coordination between members of conflict but also positive effects. Such structural effects are: leadership shift to authoritarian when threatened, increased focus on activities and less on individual satisfaction, enhanced in-group loyalty and cohesiveness, discrimination against out-group, contentious group goals, increased motivation and performance within each group, reduced interdependence or cooperation, and an increase or decrease in stability. (Wall & Callister 1995, 523–527.)

Issues change during the conflict, and even the smallest ones can shift their shape and become more difficult to resolve. Issue effects of conflicts are: increasing complexity, increase in the number of issues, becoming matters of principle, and linkage of issues. (Wall & Callister 1995, 523–527.)

Conflict produces a set of products, different kind of resolutions and residues that are effects of a conflict. Such resolutions and other residues include: explicit or tacit agreement, explicit or tacit deadlock, integrative resolution, distributive resolution, compromise, change, accommodation, avoiding others, and resignation. With or without resolution, conflict can produce negative residues but also positive ones that enhance both parties and their work environment. (Wall & Callister 1995, 524–527.)

Behavior effects, as well as the resolution effects on conflict, are also seen in conflict management styles, for example, avoiding, integrating and compromising are also styles to manage conflicts (Rahim, 1992; Ting-Toomey et al., 2001). Ting-Toomey et al. and Rahim also talk at length about disputants' attempts to save face: concern for self, concern for others, or concern for both parties. There is also confluence between effects of conflict and conflict types, for example: relational conflicts, according to studies (Amason, 1996; Jehn 1995, 1997; Maltarich et al., 2016), are directly linked to team performance and turnovers, which mean relational conflicts have effects.

Conflict escalation, de-escalation, and stabilization. As conflict cycles around, its effects alter the original cause or creates new ones. These causes, original or new ones, continue to spark the process. As a result, conflict can either escalate or de-escalate because of various reasons. Conflict escalation can be defined in different ways but one of the typical definitions is that it is a process of increased intensity or a process of worsening the conflict. Conflict also has the predisposition to escalate. Causes of general escalation are: cultural differences, history of antagonism, parties unaware of potential costs or parties are not concerned with costs, no limit on actions, insecure self-images, uncertain status differences, poor socialization, no experience with crisis, weak social bonds, mild power advantage, perceive power advantage, motivations to win or not to lose, uncertainty, lack of identification with other, festering resentment, inability to escape conflict, and long injurious stalemate. More specific causes of escalation are: escalation as a goal, complete victory as a goal, hurting other as a goal, perception that escalation has a high payoff, a perception that escalation is leverage for change, rising stakes, frustrations, and need to save face. (Wall & Callister 1995, 526–531.)

Many conflicts also de-escalate when they move towards states of decreased intensity. Many parties aim for de-escalation as they recognize the high pay of conflict. But actually, what is de-escalation all about? It is not reversing the escalation; de-escalation does not return matters or parties to their former states. De-escalation is more about reducing or eliminating the conflict. Wall and Callister do not see stabilization as a form of de-escalation because stabilized conflicts persist and over time they can be as harmful as escalating ones. (Wall & Callister 1995, 532–533.) If stabilized conflicts are not de-escalating ones, which ones will they be? Stabilization of conflicts could be then more of a way to manage the conflicts, and with good management, conflicts would not divert to detrimental ones. Wall and Callister (1995, 529) categorized the causes of de-escalation as follows: anticipated common enemy, stalemates after escalation, fatigue, recent or impending catastrophe, time lapses, one side's voluntary yielding, shift in goals, a step to cool opponents' anger, an indication that one is not evil, a step to cool tensions, and a signal that de-escalation is wanted.

To clarify the cyclical nature and different processes of conflict, the following description attempts streamline the conflict cycle and how its processes are connected. As a phenomenon, conflict is something that has a beginning, a cause that has triggered and generated the situation. Conflict can have multiple causes, or in other words, multiple causes can generate a

conflict. Conflict also has effects, and these effects can be seen directing from a cause or causes. However, these effects can also backfire, generating new causes for a conflict to thrive, and become cyclical. It could be said there is causality between causes and effects of conflicts: they are seen as interdependent; an effect does not exist without a cause and vice versa, or interconnected, with an effect following a cause, or vice versa. The nature of the connection between cause and effect depends on the context of the conflict. Also, if the conflict is managed well, the old causes will not continue or lead to new ones. If the conflict is managed poorly, the situation is most likely to escalate, fueling the causes and effects cycle. New causes might also keep appearing as the situation is not under control. If the conflict situation is stabilized, the cycle could stop for a while and wait whether the conflict fades away or escalates all over again.

Conflicts that occur in work life can be managed, stabilized, and on some occasions even resolved. Conflicts can escalate or de-escalate, which is highly dependent on different conflict management styles. This current study utilizes Wall and Callister's (1995) model of conflict cycle (see table 1). The study does not investigate the entire cycle, just the processes of causes and effects of conflicts and different results of the conflicts that occur in escalations, de-escalations, and stabilizations of conflicts. Conflict types and conflict management styles are viewed from these different phases of conflict processes in the context of workplaces' technology-mediated communication.

2.4 Definition of technology-mediated communication and technology-mediated conflicts

Technology-mediated communication. Technology-mediated communication (TMC) and computer-mediated communication (CMC) can be found as synonym terms both used in the field of communication research. In this study, the term technology-mediated communication is used due to its reference to all communication mediated through communication technology and not just computers.

Technology-mediated communication is defined in various ways. According to Spitzberg, technology-mediated communication is "any human symbolic text-based interaction conducted or facilitated through digitally-based technologies". The process of message interchange is done via the internet, phone-text, instant-messages, multiuser-interaction environments, e-mails, and videoconferences. (Spitzberg 2006, 630–631.) Simpson's (2002, 414) definition of TMC is roughly said 'human communication via computers'. At the time of Spitzberg and Simpson's studies, social media platforms had not fully broken through yet, though blogs and some social media sites already existed. Meluch and Walter (2012, 35) identify the other forms of TMC, including social networking sites like Facebook and Twitter, instant messaging, blogs, and message boards.

Technology-mediated communication can be categorized into synchronous (message is passed in real time, such as text-based online chat, audio, and video conferencing) and asynchronous messages (time passes instead of having instantaneous communication in the sender-message-receiver relationship, such as e-mail, discussion forums, and mailing lists) (Simpson 2002, 414). Though Simpson does not include social media, and it can be categorized to both: If we are talking about platforms like Twitter or Facebook, they can be categorized to synchronous and asynchronous at the same time, and such platforms like blogs can be categorized mainly to asynchronous ones.

People use different communication channels (face-to-face or technology-mediated) and various communication technologies in their workplaces. Communication technology, used in TMC, can be seen in a wider perspective under which various medium belong to: telephone calls, text messaging/SMS, e-mails, instant messaging (e.g. WhatsApp, Facebook Messenger, Skype chat), social network sites (SNS) such as Facebook and Twitter, text and video conferencing (e.g. Skype for Business, Google Hangouts), and other types of specialized groupware (e.g. organisation's intranet) organisations have in their use (Dienlin, Masur & Trepte 2017, 71; Garner & Poole 2013, 322.) One characteristic to communication technology is its interactivity due to interaction participants' equal probability to communicate via medium, and therefore, television, hearing aids, or radio are not seen as communication technology (Sivunen 2007, 51; Spitzberg 2002, 631) In this research, communication technology refers to telephone calls, text messaging, e-mails, instant messaging, social

network sites, text and video conferencing, and (organisation specific) specialized groupware are indicated.

In this study, technology-mediated communication refers to human-based synchronous and asynchronous technologically-mediated communication via various communication media and technology.

Technology-mediated conflicts. In the current study, technology-mediated conflict refers to dispute, disagreement, or tension that is based on individuals' opposing values, beliefs, attitudes, expectations, desires, needs or incompatible goals in technology-mediated communication. People working via technology-mediated means are likely to face conflicts in some point of their careers, and the impacts of the conflicts are made public in the workplace. Studies show conflicts occur in technology-mediated communication and: are seen on social media and message boards (Meluch & Walter, 2012), in e-mails, audio-conferences, video conferences, and telephone conversations (Yi-Hui Lee & Panteli, 2010).

According to Johnson et al. (2007) person's degree of argumentativeness can affect their willingness to engage in a conflict if the conflict occurs in TMC, and especially, in public arguments, argumentativeness has shown to be greater. So, it could be reasoned, that if a person's degree of argumentativeness is high, the person is more likely to take part in a debate online and is more available for the conflict situations, and people who are more argumentative and work via TMC have various channels and technologies to use when engaging in a conflict. For some individuals, social media and message boards, for example, are a public forum to argue with each other and participate in conflicts (Meluch & Walter 2012, 32), and some might prefer e-mail. When e-mail is a preferred communication medium, it does not contribute to conflict escalation but can show signs of contributing to one. Conflict can transform differently depending on adopted strategies and language that is used in the chosen communication media. (Yi-Hui Lee & Panteli, 2010.) Therefore, one could reason that the course of the conflict situation could be directed if the person in conflict considers and chooses the right kind of methods and management styles for the situation that occurs in a particular medium or channel.

According to Wakefield et al. (2008) conflicts can occur in virtual teams because of their geographical, cultural, professional, and temporal reasons and because of dispersion. The study also argues that the use of technology may have positive impacts on task conflicts. As some conflicts, especially task conflicts, are seen to have also positive impacts (Jehn, 1997; Maltarich et al., 2016) the connection between positive task conflicts and the use of technology is there to be seen. So, if the task conflicts in technology-mediated work environments are well managed, they can have positive outcomes. The same study argues, that process conflicts can be reduced with good management, and managerial actions in conflict situations are pivotal. Wakefield et al. (2008) study used the term virtual teams when describing distributed teams. Even though this current study does not have its focus on virtual teams, many of the respondents of this study worked in distributed teams and some even in virtual ones. The researcher feels the use of Wakefield et al. (2008) study is therefore justified in the context of the current study.

People who are similar to one another are perceived to face fewer conflicts than people who differ from another. When organizational culture, national culture, and IT (information technology) values match, conflicts can be reduced in workplaces which leads to the increased adoption of new communication technology (Leidner & Kayworth, 2006). Also, values and our cultural backgrounds seem to direct human behavior and how we see the world. It seems that when people worry less about conflicts and disagreements, they are more open-minded and willing to adopt new ways of communicating via technology. Furthermore, power affects communication, meaning, and decisions about how new communication technology is used (Avgerou & McGrath, 2007). One could reason, people who possess more power in workplaces can more easily influence which channels and media are used, and people in weaker positions, with less power, have fewer chances. Also, different communication technologies are used in sequence when people prepare for meetings, are running their daily task or are trying to persuade their colleagues in workplaces (Stephens et al., 2008). People with more power could have a say which channels should be used and use them in sequence, and, therefore be able to choose the best ways to persuade others at work. All in all, it seems like the used communication technology and the person using the technology and channels does make a difference.

A characteristic of TMC is that individuals exploit features of different media (e.g., e-mail, text message, social media such as Facebook, Twitter, and blogs) to make themselves look their best to attract attention, or block or reject unwanted contacts (Tong & Walther, 2011). Thus, occasionally, people might create unrealistic pictures of themselves to make their social media followers perceive what there are wanted to perceive. People's wrong perceptions could lead to unwanted commenting or liking in one's social media account that could result in unwanted reactions from their followers. Receiving unwanted reactions to one's account could make people block and reject some of their followers and cause or escalate a conflict situation between social media users.

Today's work life requires employees to use different media skilfully, even though textual based communication is preferred though video chat and video conferencing are available, which means textual relationships rely on the receiver's personal interpretation of the message (D'Urso & Pierce 2009, 1–2). People form and reform impressions they have about other online users making evaluations whether or not trust other's recommendations in discussions (Van Der Heide, 2008). How one presents oneself through different channels or media and technology seems to make a difference. Some of the co-workers may be in the same location, but nowadays on many occasions, people of the same company are distributed to different locations even within the same city. This means that one might be in contact with such a co-worker that one has not ever seen face-to-face. Messages people send during work hours and their social interaction with one other builds and maintains their relationships. Conflict as a phenomenon occurs naturally in workplaces and it is something people working through TMC should be aware of. The way people present themselves during conversations and messages via TMC is crucial to the development and management of conflict.

3 METHODS

3.1 Aim of the study and research questions

The aim of this study is to describe employees' perceptions of conflicts in workplaces when technology-mediated communication is utilized. Through participants' perceptions, it is possible to understand the phenomenon of conflict in the contexts of workplace and technology-mediated communication. The aim is approached by viewing conflict processes in conflict cycle (causes, effects, escalation, and de-escalation), different conflict types, and conflict management styles in workplace communication that occurs in TMC. Though the study gathered some data of face-to-face communication in workplaces, the main priority of this study is to view the parts of the data that contain information about workplaces' technology-mediated communication.

The research questions are as follows:

RQ1: According to employees' perception, what origins and consequences do conflicts have in workplaces when utilizing technology-mediated communication?

RQ2: According to employees' perception, what are the final results of conflicts in workplaces when utilizing technology-mediated communication?

The first research question seeks answers to different kinds of origins and consequences that conflicts have in workplaces when TMC is used. In this study, the word 'origins' refers to causes, and 'consequences' refers to effects of conflicts. The second research question asks in which ways conflicts are managed and which factors of conflicts are present in conflicts' finals results in workplaces when TMC is used. In this study, the final results refer to conflict escalation, de-escalation, and stabilization.

Based on the Wall and Callister (1995) model, a conflict cycle has different processes, phases which are causes, core process, effects, and escalation and de-escalation. To answer the first research question, the causes and effects of conflicts in workplaces' technology-mediated communication are viewed from the data. To answer the second research question, escalation, de-escalation, and stabilization of conflicts in workplaces' technology-mediated communication are viewed from the data. The core processes of conflicts are not viewed as they are not on the subject of this study. Furthermore, stabilizations of conflicts are viewed, even though they are not part of the Wall and Callister model, but because they are seen to be part of the final results of conflicts.

Research question one is viewed in the light of conflict types. Researchers have found (Jehn, 1995; Jehn, 1997; Jehn & Mannix, 2001) three kinds of conflict types to exist in work life: task, process and relational (relationship) conflicts occurring in groups and in workplaces. Research question number two is viewed in the light of conflict management styles. Based on theories by Rahim, 1983; Rahim, 1992; Ting-Toomey, 1988; Ting-Toomey, Oetzel & Yee-Jung; 2001 people have different ways to manage conflicts, by integrating, compromising, dominating, obliging, avoiding, emotional expression, third-party help, and neglect.

In this study, TMC is operationalized to communication that occurs through mediated communication channels and communication technology. High use of TMC means that technology-mediated communication is used in workplaces daily and it is pivotal for the employees. Various medium which TMC utilizes, categorized as communication technology in this study are: telephone calls, text messaging/SMS, e-mails, instant messaging (e.g. WhatsApp, Facebook Messenger, Skype chat), social network sites (SNS) such as Facebook and Twitter, text and video conferencing (e.g. Skype for Business, Google Hangouts), and other types of specialized groupware (e.g. organisation's intranet) organisations have in their use (Dienlin, Masur & Trepte 2017, 71; Garner & Poole 2013, 322.) The current study views conflicts in workplaces that utilize TMC and communication technology.

3.2 Interview as a research method

In this study, interviewing was used to understand employees' perceptions of conflicts in technology-mediated workplaces. The participants interviewed for this study had experience that is central to the research problem: interviewees provide understanding on the social actor's experience, and they provide perspectives through examples and explanations. Interviewing is a means to understand native conceptualization of communication, a way to explore common sense conceptualization of communication that diffuses around society. Information gathering about things and processes that cannot be observed by other means, and inquiring occurrences in the past, are effectively gathered and observed through interviewing. (Lindlof & Taylor 2002, 172–175.)

In the current study, the respondent interview is used to elicit employees' open-ended responses. Paul Lazarsfeld (1944) described the general goals of the respondent interview as clarification of the meanings of common concepts and opinions; distinguishing the decisive elements of an expressed opinion; determining the reason influencing a person to form an opinion or reason to act in certain ways; classifying complex attitude patterns; and understanding the interpretations people attribute to their motivations to act (Lazarsfeld 1944, cited in Lindlof & Taylor 2002, 178).

A respondent interview enables viewing the social interaction of individual's social attitudes and motives with the outer environment. Respondents speak only for themselves, express themselves on an issue or situation, and/or explain what they think and feel about their social worlds. Every interviewee participates in only one or two interview sessions, and questions that are asked can vary from interviewee to another, although, many interview sessions follow a standard order for all interviewees. This makes it possible that responses can be directly compared across the entire sample. Sometimes, when the questions are not standardized, other aspects of the interview protocol are well-defined and formalized. When selecting respondents/participants, the key element is the respondent's appropriate experience and that persons interviewed have been through, for example, a critical event that delivers a good amount of the needed information. (Lindlof & Taylor 2002, 178.)

In the current study, interviewees were asked to describe a conflict situation that is most memorable to them for one reason or another. Before the actual interview situation, pre-questions were asked to make sure the participants followed the requirements: a participant uses mainly technology-mediated communication in their work, or the role of communication technology is pivotal in their work, and, that the participant had a story to tell about a conflict situation that had occurred in their workplace.

The method of respondent interviewing was chosen due to the aim of the study. This study views employees' perceptions of conflicts in TMC in their workplaces. Dyadic interviewing as a method was chosen, for example, over focus groups. In focus group interviews people are interviewed together in groups where a moderator leads the conversation (Croucher & Cronn-Mills 2015, 174; Lindlof & Taylor 2002, 182). In this study, the questions asked are sensitive by nature. This study gathered information about the interviewees' own perspectives on incidents without anyone else influencing or being a mental hindrance for sensitive information. Discussing sensitive issues as conflicts in workplaces can be difficult to some people and it can take time and effort to earn the trust of the interviewees. If other people are present to hear some sensitive issues, it will be possible that some people are not keen on opening up about their personal life. That is why building good rapport between an interviewer and interviewee is important. Rapport means interviewer respects the people interviewed, no matter what they reveal, and what interviewees say is important because they are the ones saying it (Patton 1990, 317). In this study's interview sessions' good rapport building began when a participant or I, the interviewer, arrived at a place of the interview session: I offered some beverages before I began to interview and some small talk about life in general was also made to make the participant feel welcomed. The participant was also able to choose the location of the interview session.

3.3 Data collection

For this study, the qualitative data, recordings and interviewer's personal notes, were gathered from nine different interview sessions that took place either at mine or the participant's home. Interview sessions involved only the participant and interviewer. For this study, the nine interviews, 10 hours and 45 minutes of recorded data and nine different personal notes, are satisfactory and they produced data that is rich enough for this study's purposes.

In this study, snowball sampling was used to gather the first contacts, i.e., participants through a social media account. The snowballing begins when the first interviewee is reached and recommends another participant to join the study. The second participant can then recommend a third person to join the study and so on. (Croucher & Cronn-Mills 2015, 93; Hirsjärvi & Hurme 2001, 59–60; Lindlof & Taylor 2002, 124–125; Valli & Perkkilä 2015, 117.) The platform from which the participants of this study were gathered was Facebook. This platform was the most suitable social media platform for this study's purposes; of all of my personal social media accounts, my Facebook has the biggest and the widest audience of around 900 people. I do not actively use, for example, Twitter, so that was not an option. Also, the topic of this study takes a closer look at those who utilize TMC in work life. Therefore, TMC platform, such as Facebook, is a suitable forum for gathering participants. Because I wanted to interview people who use TMC in their work I decided to gather the interviewees through technology-mediated means.

In the beginning, I made a recruitment post to my Facebook on two different occasions and asked my Facebook friends to share the post to gain participants for my study – I had made the recruitment post available to my own Facebook audience and some of my friends' audiences. After that, I got my first replies from people who were willing to participate. People were qualified as long as they were not my closest friends, but more of acquaintances with whom I'm not regularly in contact and of whose work or personal life I do not have a good insight. However, most of the participants came through the shares my Facebook friends made, so the volunteers were mainly friends of my friends. These first contacts that I gained through Facebook and whom I interviewed recommended then some other suitable people they know to participate and helped me gain my 'second wave' of participants. Some of the

interviewees came through my personal or my Facebook friends' recruitment posts, and other interviewees, 'the second wave participants', through the first interviewees' suggestions. In this study, snowballing was an efficient method, and unfortunate dead ends or "freezes" did not occur as sometimes is possible to happen (Lindlof & Taylor 2002, 125).

The nine voluntary participants came from different backgrounds. There were a nearly equal amount of men and women between the ages of 29 and 51 that were interviewed. At the beginning of each interview I made clear the purpose of the study, and for which purposes the recorded data was going to be used. Interviewees were also informed about confidentiality, anonymity and that they had the right to stop the interview at any moment or deny the use of collected data. All participants gave their verbal consent that was recorded at the beginning of each interview session.

Interview questions used in the current study are mostly theory driven. At the point of creating the body of the interview questions, the Wall & Callister (1995) model of conflict cycle used in this study was yet to be found. But as conflict was already seen as a process in this study, the body of the interview questions formed the idea of a conflict process and a conflict cycle. Based on theories, conflict types (Jehn, 1995), conflict management styles (Rahim 1983, 1992; Oetzel et al. 2000; Ting-Toomey et al. 2001,) and my viewpoint of the conflict process, the interview themes and questions were created. Interview questions were semi-structured, which enabled the discussion to flow freely around the interview themes.

The interviews were constructed using seven different themes. Theme one consisted of participant's demographic information: age, gender, occupation, title, and work history. Theme two asked about technology-mediated work communication channels and their usage (which communication channels and technology is used at work, how much different channels are in use, does work community use applications or social media platforms), where is the work done (at office, home, somewhere else) and technology used, (how much there is face-to-face communication at present).

After two background questions, the cycle of conflict and its phases, processes were clarified. Theme three sought answers to how the conflict situation began and also asked the participants to tell a memorable story about conflict that had occurred in their work life. Theme four helped to understand the conflict's development and possible escalation with the questions: how did the conflict proceed, what happened after the conflict situation had begun, was the conflict issue on a personal level, did people or issues argue, did outsiders have any role in the situation, what is and was your relationship between your colleagues, do you still keep in touch with your colleagues, do you spend your free time with your colleagues outside the office, and, if so, do the persons with whom you spent free time together get chosen for some particular reasons, where did the conflict occur (social media, intranet, email etc., or face-to face), which channels were used during the conflict, did the conflict change from one issue to another or from channel to another, or from face-to-face to TMC, were there different locations or situations where the issue was discussed (e.g. coffee table conversation, email etc.).

After knowing how the conflict situation evolved, theme five sought answers to conflict resolution, management, and mediation. Questions asked in the theme five were: how did the conflict situation end, was the situation resolved or did anyone even try to solve it and if so, who was it, or why wasn't the conflict solved, was the situation confronted directly, or did it involve talking behind people's back. Altogether themes three, four, and five clarified the beginning, the development and the results of the conflict situations described by the respondents.

Theme six focused more on the TMC: technology-mediated versus face-to-face communication. These two phenomena were not compared, but the role of TMC was clarified with the questions: what role does TMC play in your workplace, are there differences in your workplace between how you act in face-to-face communication or through technology-mediated communication, and which one do you prefer, F-t-F or TMC and why? Theme seven (open-ended) was included to accommodate additional thoughts the respondent might have had. Altogether these seven questions gave a thorough cross-section of the respondents TMC and their conflict situations at their workplace.

Participants' work fields varied, but they were all closely connected to TMC on behalf of their work. Participants' positions within their workplaces vary from self-employed entrepreneur to manager/team leader, and to subordinate. Participants reported working in healthcare, communications, customer service, human resources (HR), security, and information technology (IT). Participants described the use of a different kind of technology in workplaces and the use of TMC that was perceived to grow all the time. Communication technology and channels that were used in the workplaces: e-mail, phone calls, text messages, Skype for Business (former Microsoft Lync), intranets, Adobe Connect, Google Hangouts, Adobe Connect, Yammer, video conferencing, instant messaging, social media platforms (Facebook and WhatsApp), and other types of specialized groupware (e.g. organisation's intranet, or security software). Most of these media were used in formal communication within in the workplace, except social media was used both, formally and informally.

Google Hangouts and Skype for Business were described to be used for video and voice meetings and their instant message services for asking quick questions and replies. Especially, Skype for Business (former Lync) seemed to be widely used in most of the workplaces. The difference between Skype and Hangouts usage is that Skype was described to be in multipurpose use and it could be used either with just voice, or just for instant messaging, and Hangouts was described to be preferred to use with video connection and with instant messaging when sharing the screen with a distributed workgroup. The plain voice was not described to be used that much with Hangouts. Also, video connection was sometimes completely avoided and some employees preferred using just voice via video conferencing.

Unofficial communication was described to happen amongst co-workers through social media platforms, Facebook and WhatsApp. Of these two social media platforms, WhatsApp was also used for official communication in some of the workplaces and described to be more popular and used more than Facebook. Some people share their personal messages during the day in WhatsApp so it might be easy to adapt the use of WhatsApp also for work purposes. The nature of WhatsApp and Facebook is a bit different, but they are both considered to be social media forums. WhatsApp is based on telephone numbers, and it does not require people to become friends before using their services, though you might have to accept the message request sometimes. Facebook, on the other hand, is based on making friends and connecting with them, although, nowadays, Facebook does not require people to be friends to have a

conversation on Messenger. Therefore, Facebook Messenger could also be used in some work-related conversations so that individuals could still maintain their privacy. All in all, the official and unofficial communication is described to take place on WhatsApp and the unofficial more on Facebook when considering social media forums.

The more traditional communication technology is also still in use in workplaces, and people make phone calls and send text messages. Phone calls were described to be used when a person is needed to reach quickly. Text messages were described to be important in situations where messages' transfer need to be secure. Services that require online use are not seen as the most reliable when situations involve, e.g., saving human lives in emergency situations. Also, text messages were used when a person is not reached, and quick response is needed. Yet, e-mail is described to be the most used in TMC in workplaces and the use of e-mail is seen throughout the interview data in participants' descriptions of conflict processes. E-mail is also perceived as a medium through which supervisors are not easy to get in touch, and information overload, the use of too many e-mails is a hindrance in workplaces. Some see that chats/instant messengers ease the information overload and therefore they are preferred over e-mail if possible.

3.4 Analysis

Qualitative content analysis was chosen for this study because it systematically describes, categorizes and/or makes inferences about communication messages, and it is used extensively to study processes (Croucher & Cronn-Mills 2015, 206). This study's main focus is on different processes, phases of conflicts that occur in workplaces' technology-mediated communication and, therefore, content analysis is seen to be suitable for this study's purposes. Content analysis can be conducted either in a deductive way, in which created categories are based on previous research, or, in an inductive way, in which mutually exclusive categories are created (Croucher & Cronn-Mills 2015, 210). Furthermore, a content analysis can be conducted in a theory-driven way. The theory-driven analysis has connections to theory but the analysis does not rise from a theory, or it is not based on a particular theory (Eskola 2015,

188). This current study was conducted using theory-driven qualitative content analysis because this study has connections to theories, but it is not based on any particular theory.

When starting the content analysis process, *units of analysis* need to be selected. Such units can be for example diaries, observations, or interviews. In case of this study, interviews are used. Interview is at the same time large enough to be considered as whole, and small enough so that it can also be considered to be the context for *the meaning unit*. Words, sentences and paragraphs that are related to each other through their content and context are referred to as meaning units. By using content analysis the amount of material gets reduced and the size of the material decreases. This does not mean that anything important is excluded. *Condensation of material* secures the core is preserved even though the material is shortened. The next phase of the analysis means the text/material is *abstracted* by creating codes, categories or themes. Parts of the texts, specific issues, are referred to *content areas* that can be parts of the text that are based on theoretical assumptions from the literature, or they can address to a specific topic in an interview. (Graneheim & Lundman 2003, 105 – 107.) Content categories, such as themes, are created to answer the question: what content categories produce the data needed to answer the objectives of the research? (Croucher & Cronn-Mills 2015, 210). In this study, meaning units, content areas, and themes are created to answer this study's objectives.

Phases of the analysis. Firstly, the interview recordings and notes, units of analysis, were transcribed after each session, and at the same time, meaning units were gathered. By condensing and abstracting the meaning units, some content areas arose. These preliminary content areas were based on the interview questions that were based on some previous conflict research (Jehn, 1995; Rahim 1983, 1992; Oetzel et al. 2000; Ting-Toomey et al. 2001) and based on my previous knowledge and understanding of TMC and conflicts. The preliminary content areas for the analysis were: technology-mediated communication, interviewees' profiles, face-to-face communication, causes of conflict, effects of conflict, profile, and work communication channels.

Secondly, research questions were revised after some new theory (the model of conflict cycle) was added to this study. The model of conflict cycle was not included to this study at the time of when interview questions' themes were created; instead, the interview themes were

reasoned based on the understanding that conflict is a process. Based on renewed research questions, transcriptions, and preliminary content areas, some new content areas were constructed: content area one: causes of conflicts; content area two: core processes of conflicts; content area three: effects of conflicts; and content area four: escalation/de-escalation/stabilization of conflicts. Several Word files were created, and all content areas found from the data were gathered into separate files. Some of the interview content was coded under more than just one content area because of the cyclical nature of conflict – conflicts phases overlapped. Preliminary themes started to emerge under the four content areas, but the themes we not clear enough.

Thirdly, the needed parts of the interviews were translated into English, as the interviews were conducted in Finnish, and results were combined and written using participants' given examples. To guarantee participants' anonymity, they were coded from R1–R9. Some examples revealed too much about the participants, e.g., the gender of the participant, and therefore, more details about the coding or any connections to their work posts is not revealed. Numbers were only used to ease the analysis to delineate one respondent from another.

Fourthly, the content areas of the analysis and the preliminary themes of this study were revised, and they were abstracted again. The objectives of the study were not fully reached with the preliminary themes and the previous four content areas (content area one: causes of conflicts; content area two: core processes of conflicts; content area three: effects of conflicts; and content area four: escalation/de-escalation/stabilization of conflicts), and therefore, the research questions and content areas and their themes under analysis were revised.

After the final revision, the content areas were abstracted and they resulted in main factors, and themes of causes and effects of conflicts, and to final results of conflicts and their main factors of conflicts and conflict management styles. The main factors of causes of conflicts and their themes are: individual factors (themes: personality, communication style, power and status), social interaction factors (themes: previous history, flow of information, power and status, relational conflict), work environmental factors (themes: work performance issues, management issues, cultural issues, task and process conflicts, long-term conflict), and technology-mediated factors (themes: communication style in TMC, technology-mediated

interaction, e-mail as a medium). The main factors of effects of conflicts and their themes are: individual factors (themes: no effects, physical issues), social interaction factors (themes: positive interaction, mediation, avoidance, relational conflict), work environmental factors (themes: rearrangement of work), and technology-mediated factors (themes: effects on social media – unfriending, effects on e-mail and instant message, effects on video, relational conflict). The final results of conflicts are escalation: main factors (social interaction factors, work environmental factors, technology-mediated factors) and conflict management styles (avoiding, dominating, passive-aggressive); de-escalation: main factors (social interaction factors, work environmental factor, technology-mediated factors) and conflict management styles (third party help, integrating, emotional expression); and stabilization: main factors (social interaction factors) and conflict management styles (avoiding, obliging).

The individual factors refer to person's intrapersonal issues such as traits, thoughts, values, and beliefs. The social interaction factors retain interpersonal issues concerning conflict participant's current and previous communication and interaction with other members of the workplace. The work environmental factors are everything that concerns the workplace and the work itself; management, delegation, work performance, or job satisfaction to name a few. The technology-mediated factors involve the use of communication technology as a part of the conflict's cause or effect.

The preliminary content area two, core processes of conflicts, was ruled out after revision. The research question and the theme focusing on core processes of the conflicts were not central to this study and were therefore ruled out. This study's analysis was conducted applying the Wall and Callister's (1995) model of conflict cycle, some theories of conflict types (Jehn, 1997), and conflict management styles (Rahim, 1992; Oetzel et al., 2000; Ting-Toomey et al., 2001). In the next chapter, the results of this study will be described by means of English translated examples of the interviews that were conducted in Finnish.

4 RESULTS

This study aimed to describe employees' perceptions of conflicts in workplaces when technology-mediated communication is utilized. The following chapter contains the results of the study. The results are divided into three groupings: perceived causes of conflicts, perceived effects of conflicts, and perceived final results of conflicts.

4.1 Perceived causes and effects of conflicts

The first two groupings describe perceived conflicts and their cause and effect phases of the conflict process in workplaces using examples of respondents' perceptions. The first two groupings aim to answer the first research question: "According to employees' perception, what origins (causes) and consequences (effects) do conflicts have in workplaces when utilizing technology-mediated communication?" The described conflict situations have occurred in the participants' workplaces in their social interaction. The examples used in this chapter are mainly from situations that have occurred in TMC via communication technology. There are also few examples of face-to-face communication, and they are used when face-to-face communication was significant and had connections to the participants TMC.

Table 1 shows main factors and different themes of causes of conflicts that were categorized using the qualitative content analysis. The four different kinds of main factors (individual factors, social interaction factors, work environmental factors and technology-mediated factors), and several themes, which are more specific and which provide detailed reasoning to causes, explain the causes of conflict. The main factors and themes are presented in the following (see Table 1).

TABLE 1 Causes of conflicts

Main factors of conflicts	Themes
Individual factors	Personality
	Communication style
	Power and Status
Social interaction factors	Previous history
	Flow of information
	Power and Status
	Relational conflict
Work environmental factors	Work performance issues
	Management issues
	Cultural issues
	Task and process conflicts
	Long-term conflict
Technology-mediated factors	Communication style in TMC
	Technology-mediated interaction
	E-mail as a medium

Individual factors – causes. Individual factors i.e. intrapersonal issues that appeared to be causes of conflicts are personality, communication style, and power and status. Personality refers to people's individual characteristics that make them different, unique and separates them from each other. Respondents described differences in personalities as a cause of conflict. In one occasion a respondent describes a conflict situation that occurred during an e-mail exchange. The respondent sent an e-mail to two of his/her colleagues, but only one of them responded. The respondent described that these two colleagues were not eagerly in contact with each other and that they were reluctant to participate in the conversation even if there was an e-mail chain that concerned their common work affairs. The respondent described and perceived the situation resulting from their colleagues' different personalities:

> "And why they have problems in their communication is because they are so different kinds of people. This -- nurse is correct, how would I describe it? Well, the nurse does not have a gleam in their eye as this free time activity coordinator has." R5

An intrapersonal issue, such as personality, was seen as a cause for a conflict. Personality differences had an influence on individual's choices and preferences and were perceived to guide individual's actions.

Communication style as an individual factor refers to person's own style of communication. It is the person's own way of acting, reacting and behaving in communication situations, and, in the context of this study, particularly in the context of the workplace. The way person communicates was seen pivotal as respondents perceived that the communication style played a role in the emerging of conflict situations. The way person communicates can create different meanings to different people. When people and their meanings did not meet each other's expectations, difficulties and misunderstandings arose. One of the respondents described that they were giving instructions to other people via e-mail and was surprised some of the people had difficulties in understanding their instructions:

> "-- So, then, I started to wonder how did I write this [e-mail] as they do not understand. Some things went ok and on the other hand, some people did not understand at all. Then someone comes to my door and asks me to explain these situations--." R4

The respondent seemed to feel their way of passing on the instructions was not working sufficiently and they needed to explain the e-mail and the instructions a bit more. In other situation, a respondent described there was a person in their workplace that was too direct and the way they were communicating via e-mails was negative. The respondent perceived the person's all over communication style was causing conflicts:

> "-- they way of communication is freezing and e-mails are quite direct." R8

Whether the way people communicated was conscious or not, there was something in their communication style that other people felt to have caused the conflicts.

Power and status were perceived to occur in the workplaces. Individuals used their real, perceived or legitimate power and status to address their own agendas. Power was something

people had over other people in their workplaces and status was based on something they had or had not earned. One respondent argued difficulties arose because of her gender and education even though she was legitimately superior in the workplace, and the one who gave work orders and supervised that they were obeyed:

> "But then things came up. I do not know if it is because I am a woman, or because he thinks he is better educated than I am. After all, it is me who is giving the orders and supervising they are obeyed." R4

This situation described the overall perception of the respondent's and her subordinates' social interaction in their workplace. The respondent had had several conversations via e-mail and face-to-face about guidelines and instructions that needed to be followed at work. Nevertheless, the subordinate did not follow the company rules. One other situation brings out power and status differences in a perspective of extra worker versus regular worker. A respondent, a manager of the workplace, perceived that their extra workers that are sent to different units are not treated the same way as some regular workers are. Extra workers are all put into the same category of extra workers because they are just 'extras'. The manager used e-mail as a means to connect with their employees and they had received some feedback from his/her extra worker that those kinds of situations were happening in the workplaces:

> "There have been problems in that unit previously as mentioned. These extras might have been there on and off on a weekly basis, but they still feel they do not belong to the same crew. – extras might be called extras." R6

Power was shown and ruling people out of the workplace's in-group brought out status differences between the workers, which caused conflicts between workers that had different, not so permanent, work status.

Personality and communication style themes were seen partly combined to each other as individual's values, beliefs, and thoughts guide their communication and are part of who they are, part of their personality. The way power and status were seen in workplaces in all their forms, real or perceived or legitimate or not, made the respondents make their own judgment of the conflict situations and their causes.

Social interaction factors – causes. Social interaction factors, which respondents perceived to be the causes of conflicts, are previous history, power and status, the flow of information, and relational conflict. Previous history between staff members was described to be causing conflicts. The previous history refers to staff members, employees' and supervisors' interaction and relations that they have had before the described conflict situation occurred, and to people that had worked together for some time and had shared a bit longer history. Previous history that played a role in a cause of conflict could be seen widely throughout the data. The previous history and interaction between co-workers had been either positive or negative by nature before the described conflict situation. In positive situations, people had come along well before, but especially some changes in the company hierarchy brought along changes in interpersonal communication and relationships:

> "We were good friends in my opinion. They visited my family -- I let them develop photographs at work. They took pictures at work, pictures of us and so, I thought things were well." R4

The respondent describing the situation was the other disputants' supervisor. While the supervisor was on holiday, the disputant worked as a substitute. After the holidays, the respondent described more problems appearing in their relationship and interpersonal communication that occurred in e-mails and in face-to-face situations. When previous history and interaction has been negative between co-workers, status and hierarchy also play a role. The respondent had complained about their team leader to their supervisor via e-mails seeking help:

> "Yes, there has always been [problems], but at least when they were a co-worker they realized they did not have authority over me, so these excesses did not exist that much. It's like, I think one is a competent employee but a bad supervisor." R2

In this situation, the co-worker had been promoted to a team leader and the respondent described that conflicts started to increase between them. Before, when they were colleagues, excesses happened more seldom. Changes in the company hierarchy, in power relations, and previous negative history also lead to increased conflicts.

Power and status differences are occasionally linked to the previous history, but they are described to cause conflicts on their own in the employees' social interaction in workplaces. A respondent described one incident when power relations were shown. The respondent was a middle manager and had problems with one of the team members. The subordinate had refused to wear clothes that are required by the company officials and they also used technical devices that were prohibited during working hours:

> "—it was not allowed to bring laptop or iPad with you to work and they had it all the time. I understand that it keeps you awake during the night shift, but one is an officer. The officer is there for work not for watching movies. – no, they did not take any pieces of advice or instructions." R4

Even though the middle manager had explained the company regulations in e-mails and face-to face, the subordinate neglected them, which started to cause problems between these two disputants and to their interpersonal communication. At the same time, the company regulations and the supervisor's instructions were not obeyed.

The flow of information was seen several times as a cause of communication difficulties. Some of the respondents described different scenarios of how they did not receive help, instructions were not clear, or they had had difficulties in understanding messages or other people's communication. On some occasions, difficulties arose when knowledge was not shared among workers. One person at work had better knowledge of, e.g., about the software that the company used. The person was perceived wanting to keep their position and power in the workplace and was doing it by withholding information and not sharing their technological expertise:

> "They give you just the exact what you need. Nothing more nothing less, that's it! And this is now something that started to get on my nerves at some point. – because, if you have one flower and you would need to know from which field it is picked from and how does the field look like, you would not know. I think it is a matter of power and their way is to do everything by themselves." R3

The problem causing conflicts was the knowledge and information that was not shared among workers that had the willingness to learn. One other problematic situation with the flow of information is that it might not reach all necessary people in a workplace. When people did not receive important information, or the flow of information had problems, respondents

described emerging conflicts. A respondent explained that when they were on holiday there was a breakage in the flow of information. This breakdown caused a conflict involving several employees of the company and caused harm to their customers and patients:

> "Regardless, even though this was well informed in our opinion, when I got back to work the managers were angry, not directly to me, but about how it is possible that information does not go around even though they feel I as spokesperson do my best." R5

The respondent had sent several e-mails to home care personnel and their managers and described that the managers were especially urged to share the information with their subordinates and customers making sure everyone gets the important information. The respondent explained they had started to inform about the changes that took place during the holidays. The information was placed in intranet and traditional letters were sent to aged customers. Regardless the prior informing, some elderly people did not get the message and tried to get into closed centres. Afterwards, the employees were not happy about the situation and it raised questions and caused conflicted situation.

The participants described relational conflicts widely as causes of conflicts. These relational conflicts indicated that conflicts were on a personal level and were seen in their social interaction. One of the issues that arouse often on a relational level was "chemistry". The participants described to have had chemistry problems with their colleagues:

> "I believe that there was mostly problems with chemistry, hmm, this particular individual [HR manager] was not tremendously popular amongst co-workers from early on –." R2

The respondent described that some workers of the company disliked their HR manager and the respondent was one of them who therefore did not reply to the company's e-mail chain and openly exchange their opinions about the topic under discussion. The cause for a conflict was seen in personal issues.

The previous history, power relations and the ways and means of how information is constructed and maintained were closely tied to one another and perceived as relational and

interactional causes of conflicts. All these causes were perceived to have happened or been ongoing issues in the respondents' workplaces.

Work environmental factors – causes. Work environmental factors of causes of conflicts are work performance issues, management issues, cultural issues, task and process conflict, and long-term conflict. Work performance refers to work-related issues that cover questions of how, where, when and by whom the work is done. Some of the participants described situations in their workplaces where changes or requests in work performance caused conflict situations. On one occasion, employees of the company needed to start using employee time tracking system, which made a respondent feel the workers of the company lost some of their independence:

> "-- in my old workplace, the first one I had. They tried or did put there this a bit stricter employee time tracking. That nearly created a big revolt, of course, because coders are used to having their freedom and first thought was that they now start to increase surveillance and this is like, err..hmm.., just like living in a police state." R1

The company needed to start tracking its employees because of the regulations set by the government. This is what was perceived to have culminated the workers' situation into a conflict.

Management issues rose when a supervisor was seen to be unfair, not loyal to subordinates, and delegating duties and responsibilities unequally. A respondent described an event, where employee cooperation negotiations were going on and a strike was about to begin and the company's personnel manager was not perceived to act as one should have in that position. They had placed a request to the employees to work even though the strike was about to begin, and the manager sent several sentimental e-mails via the company's mailing list and tried to influence the workers:

> "Strike was about to begin -- Personnel manager gave long stories of how we all need to pull together now and everyone should think whether one wants to harm the company or be jovial and trustworthy, and altogether this team player and come to work.

This appeal and effort to influence the workers made the respondent trust less the personnel manager. The situation had made the respondent feel the manager did not take care of the workers' rights but instead was perceived to take the company's side in this dispute. These requests raised issues amongst workers and were seen as a cause of conflict.

Cultural differences created situations that lead to cause conflicts. A respondent addresses directly cultural differences as a reason for conflict. They point out specific differences in management styles between persons of different nationalities, different cultural background and geographical location. In this case, an IT company's two distributed teams were conducting a project that their client had ordered. The client had provided the teams with erroneous Excel files and this meant a delay for the entire project. In particular, the eastern European team suffered from misinformation. The local team leader, from eastern Europe, was angry and accused the Finnish team, and especially the Finnish team leader, about the situation in the e-mails they sent:

"I think this situation occurred because of cultural differences. – They might have had too narrow perspective on this. It was a really massive project. This technical bit [they were doing] was just a small piece in a bigger totality. They viewed it from a very narrow perspective and only minded their own issues were sorted. And that might be the cultural difference in somehow." R7

The respondent reasoned the situation occurred this way because of different management styles, and, also because they had not met face-to-face earlier, just via Hangouts meetings and e-mails, and, therefore the eastern European team leader did not perhaps trust the Finnish team leader. The respondent described the local team leader had too narrow perspective and saw it as a cultural difference.

The respondents perceived some task conflicts, issues arose during the work task, and process conflicts, issues arose as a part of the work process. A participant described that two distributed teams received an Excel file, which obtained pivotal information needed in their work project. This Excel had misinformation, which delayed the project. The teams did not

delegate who should have checked the Excel, whose work it was to do before starting the project. Because of the unclear work task, a conflict occurred and issues rose:

> "—a client should have checked a massive Excel file that we got so that it was for sure correct. There were huge errors and we got extra work—" R7

The respondent explained that the other team's members had not taken the work task of checking the Excel full of errors. So, at the same time, the process of performing the work was unclear: whose responsibility it was to check the files. Other kinds of task and process related issues that lead to conflicts were monitoring the work processes, unclear work tasks, the delegation of duties and scarce resources.

Long-term conflicts in workplaces take time to develop. Conflicts have occurred in some ways or forms earlier among workers, but as time passed, the conflict evolved and it causes conflicts because of its duration. Because of long-term conflict situations, some workers longed for a different post within the company or they were reconsidering to resign from the company. On one occasion, a participant described that they wanted to change their work team. The participant had had problems with their team leader for a longer period of time. The team leader had used inappropriate language several times in the past and the participant felt to be undermined constantly. The participant had changed e-mail messages with their supervisor, who is also superior to the team leader, and asked help:

> "—I got to change my workgroup finally, which means I do not have to work under that slimy manager. When one complains year and a half something happens." R2

The participant described the situation at work started to be unbearable and they did not know what they would have done if the long-term conflict situation had not been eased.

Work performance and management issues were widely described by the respondents as work environmental causes. Cultural issues were described to be related to some of the work performance and management issues. Also, some of these work environmental causes of

conflicts were developed in long-term, and they were seen as process and task conflicts by the respondents.

Technology-Mediated factors – causes. There are different kinds of technology-mediated factors for causes of conflicts: communication style in TMC can seen as a cause, or the technology-mediated interaction itself, and, as a medium, the e-mail appears to be often the channel to cause conflicts in TMC. A respondent characterized their company having an enormous problem in the flow of information because workers did not use or read e-mails often enough. The respondent described not all the employees felt that e-mails were always important, even though, all official correspondence and many of the company instructions were delivered via e-mails:

> "—people read their e-mails depending the situation and information does not reach the people." R3

The respondent described how some of the colleagues used post-it notes instead of sending important information to others via e-mail, even though, it was instructed and requested to use e-mails. People worked in shifts and as people did not meet face-to-face often, the messages should have been sent through e-mails so that they would reach everyone for sure.

> -- This was in the beginning of 2000s, and on those days we communicated nearly just through e-mail. The exchange of e-mails sounded quite bitter when the HR manager and few others, especially those older ones who had been working for the company much longer time, tried to validate their viewpoints in that exchange of e-mails." R1

The respondent perceived the tone of the e-mails to be bitter. Various people interacted with each other and constructed the conflict in the e-mail chain. The causes of the conflict occurred in TMC and the way people interacted was perceived to assist the situation.

Also, some relationships that were built between distributed team members in intercultural context and relied solely in TMC had problems as a respondent described:

> "No, there was none [face-to-face communication]. In the beginning we used e-mails and then we went it [the conflict situation] through via Hangouts. -- It was probably the first e-mails [how the conflict started] as they accused people by their names." R7

The respondent explained that on his/her viewpoint the cause for the conflicted situation was that the disputants had never met face-to-face, just interacted technology-mediated. They described that the use of e-mail left speculation, but the video conversations cleared the situation eventually. But in the beginning, the fact that they had never met face-to-face, just via TMC, seemed to have triggered the situation.

Next, the results of the perceived effects of conflicts are described in the second grouping. Table 2 shows main factors and different themes of effects of conflicts that were categorized using the qualitative content analysis. The four main factors (individual factors, social interaction factors, work environmental factors, technology-mediated factors) and several themes, more specific descriptions of effects, explain the effects of conflicts. The main factors and themes are presented in the following (see Table 2).

TABLE 2 Effects of conflicts

Main factors of conflicts	Themes
Individual factors	Physical issues No effects
Social interaction factors	Positive interaction Mediation Avoidance Relational conflict
Work environmental factors	Rearrangement of work
Technology-mediated factors	Effects on social media - unfriending Effects on e-mail and instant message Effects on video Relational conflict

Individual factors – effects. There were different kinds of individual factors of effects of conflicts. Effects on the intrapersonal level were physical, such as anxiety, stress, and anger, or the conflicts were perceived to have had no effects on the respondents. Physical effects were widely described by the respondents and they were negative by nature. A respondent described how the conflict situation had effects in their entire body because they got so upset. The respondent had had difficulties with their team leader for a longer period of time and she reacted the situation with her entire body.

"I was so angry that my body started to shake" R2

The respondent's body started to shake as an effect of the conflict situation. Other respondent felt the conflict affected their stress levels:

"It creates stress, it creates frustration and something should be done." R3

The respondent was hoping some work tasks and the flow of information would be rearranged because current situation at work had effects on their personal well-being. There was also a situation where a respondent, a team leader, had difficulties with their team member. The team member was very unclear how to perform their work and the team leader described the situation made them feel anxious:

> "Every time, we needed to go through the same issue all over again. I started to get anxious. – working with them never worked through technology." R9

The respondents felt problems were to be seen in their TMC, when the team member did not know how to do their tasks. The respondent had clarified and talked about what should be done but for some reason things remained unclear. This caused anxiety to the respondent.

There were also situations where respondents felt the conflict had no effects on them. A respondent described to have sent bitter e-mails in a mailing list conversation where company's HR manager and employees had a dispute:

> "It had no effects on me all though I did send some bitter e-mails there, but, well, I do not remember there was anything special after that." R1

The participant had been involved or taken part in the conflict situation but felt it was no big issue and it had no further effects on his work or in any other matters.

Social interaction factors – effects. Social interaction factors for effects of conflicts are positive interaction, mediation, avoidance, and relational conflict. Participants described the effects of conflicts to be many times negative by nature but conflict situations had also some positive effects. That is why these positive social interaction factors, as a result, are to be noted. The positive interaction effect means that something in the workplace among the workers and their interaction improved and got better. A respondent described a situation where they confronted an occurring conflict. After distributed team leaders had discussed via video (Hangouts) things started to resolve:

"Quite neutral [relationship] before the conflict situation, and afterward I, of course, got to know the person, so it lowered the threshold, let's say, to not only have formal communication. – I see [the relationship] is better after we went through the issue. Perhaps it is because the more you communicate with another person the more the relationship develops." R7

The effect of the conflict was positive interaction between the two team leaders after they had increased their communication and started to get to know each other better.

As an effect of a conflict situation respondents described there was a need for some mediation and a mediator. Occasionally, the respondents found themselves mediating conflict situations between workers who did not get along. A respondent explained they were helping out in a situation where one out of the two disputants was not willing to reply to work e-mails that were addressed to both of them. Same kind of conflicts had been among the disputants also before and their stories about what had happened never met:

"Their stories never meet; it is like they are talking different stuff. And it feels like I get to every time mediate, be there, and seldom they are both there at the same time. And I then hear about these things afterward." R5

Mediation was a regular effect of a conflict in their workplace and something the respondent was used to do.

Avoidance was seen as an effect of conflict that occurred when people did not want to confront other disputant of a conflict situation. A respondent described that by avoiding they did not have to interact with a colleague with whom they had the conflict:

"I pondered, whether or not to send a text or call, but then I thought it would be for no reason. They do not work with us anymore and I do not have to be in contact with them." R4

The respondent reasoned they had no cause why to contact their colleague as the person no longer worked for the company. Instead, they chose to avoid the person and the interaction situation.

Relational conflicts were widely present as effects of conflicts. There were situations were relational conflict had been present for a longer period of time, or a shorter while. In one occasion, a relational conflict had been present for a longer period of time and the same kind of situations kept on coming on a regular basis altering a new relational conflict after another one:

> "When these notifications have come that one should think one's behavior, it has for a little while, well, it seems that one is like manic-depressive. In one time cheerful and happy, and in other time, after a little while, one goes back to one's routines with that behavior. One becomes fierce in conversations." R8

At the same time, this relational conflict is the cause of the conflict and the effect of the conflict. The respondent described relational issues with one of their colleagues who cools down for a while but then suddenly continues behaving badly. The respondent perceived that some people in their workplace did not have positive thoughts about the colleague's behavior and interaction with other workers. The effects were seen in interaction that had a negative voice after each new conflict.

Altogether, conflicts were perceived to have caused some positive interaction even though many times their negative sides were more to be seen. Some participants were perceived to be avoiding the situation that conflicts had caused, and some needed to work as mediators between disputants. The effects were widely seen on the relational level in both positive and negative issues.

Work environmental factors – effects. Respondents described some work environmental factors of effects of conflicts. The described effects were about issues that concerned rearranging the work. Conflict situations were described to make workers longing for a different post within the company or even make people resign. A participant described,

because of a long-term conflict situation in a workplace, they wanted to change their work team. The participant had had problems with their team leader for a longer period of time:

> "--I got to change my workgroup finally which means I do not have work under that slimy manager. When one complains year and a half something happens." R2

The respondent, as a cause of conflict, hoped to get new team leader as the conflict situation between the two of them had been enough for them.

Technology-mediated factors – effects. Social media, particularly Facebook, was relatively widely seen in technology-mediated effects of conflicts. Participants also described the use of e-mails and video calls when effects of conflicts were discussed. Relational conflicts were present in technology-mediated conflicts throughout the TMC described by the respondents. Disputes in workplaces had effects on a respondents' private and public social life that was maintained in social media. In some occasions, disputants' conflicts resulted in such effects as unfriending the other party on social media account, particularly on Facebook. A respondent described liking a Facebook comment that took a stance on religious and value-based issues:

> "Why they unfriended me is that they supports this "Genuine Marriage" cause. Then I, not even with bad intentions, I liked one other co-worker's comment in a conversation. That was the last drop. I did not even comment! --I just liked the other co-worker's comment." R9

The respondent explained they only liked a comment that took stance on people's values. They also described that unfriending was the effect of their disputes and the latest social media issue had been last drop and unfriending in social media was the effect of their conflicts.

Effects of conflicts were to be seen in video conversations. Two distributed team leaders fell into a conflict situation and a respondent described how the effects of the conflict situation were dealt in Hangouts:

> "I bet they blamed me the most, I had just jumped into the project and was in charge--. We had never

met--. In the beginning in e-mails and then we went over those [issues] via Hangouts." R7

Video as a medium was a place where the effects of the conflict were dealt and disputes discussed between the conflict parties.

E-mails and instant messages were sent after conflict situations had emerged in workplaces. People wanted to express their thoughts and ideas openly via mailing lists and privately via instant messenger so the effects were to be seen in TMC. A respondent described that a few minutes after their face-to-face team meeting they and their colleague continued to discuss the conflict issue that had risen:

> "--I went to the fifth floor and they to the fourth. Quickly after that, I got a message: "Well, that was a meeting for a change!" I then replied: "Yeah, that was a mood killer!" R8

The respondent and the colleague with whom they had exchanged ideas agreed that there was a co-worker who time after another managed to disturb their workflow and mood.

Relational conflicts have their focus on personal level issues. These kinds of conflicts were present in the effects of technology-mediated conflicts. A respondent described a dispute with his/her colleague, who also was a subordinate in the respondent's team. The respondent explained a situation with the subordinate who had already resigned from the company but was still working their last weeks for the company. Some co-workers were planning company's recreational day activities and the resigned co-worker overheard the planning where the respondent took part. The respondent explained that the resigned co-worker was not invited as one was leaving the company and no longer was allowed to hear the company's sensitive information. The respondent was assuming the resigned worker got upset:

> "That's when I noticed, I guessed and checked Facebook. I had got to know them that much so I knew they would get upset." R4

A while after the overheard conversation, the conflict resulted in unfriending on Facebook by the subordinate. This indicated that the subordinate did not want to continue their relationship on social media and let the respondent be part of their technology-mediated social circles.

4.2 Perceived final results of conflicts

The third grouping describes the perceived final results of conflicts and aims to answer the second research question: "According to employees' perception, what are the final results of conflicts in workplaces when utilizing technology-mediated communication?" The described conflict situations have occurred in the participants' workplaces in their social interaction. The examples used in this chapter, as it was in the previous chapter, are mainly from situations that have occurred in TMC via communication technology. There are also few examples of face-to-face communication, and they are used when face-to-face communication was significant and had connections to the participants TMC.

There were three different kinds of main factors explaining the final results of conflicts: Social interaction factors, work environmental factors, and technology-mediated factors. The three main factors are the same ones as in causes and effects of the conflicts with the difference, lack of the individual factors. In addition to the main factors, the final results looked the described conflict management styles in workplaces. These factors and management styles are presented in the following (see Table 3).

TABLE 3 The final results of conflicts

Final results	Main factors of conflicts	Conflict management styles
Escalation of conflicts	Social interaction factors Work environmental factors Technology-mediated factors	Avoiding Dominating Passive-aggressive
De-escalation of conflicts	Social interaction factors Work environmental factors Technology-mediated factors	Third party help Integrating Emotional expression
Stabilization of conflicts	Social interaction factors	Avoiding Obliging

Conflict management styles of escalatory conflict situations. The respondents of this study described their conflict situations that occurred in the workplace and also the ways there were managed. The respondents portrayed the issues and incidents as they perceived them and explained their own viewpoint and relations to the situations. Conflicts were managed in escalatory situations in the workplaces in few different ways. The respondents described avoidance, dominance, and passive-aggressive behavior. Avoiding the conflict situation was used as a way to manage conflicts as some participants choose not to confront the conflict situation and let the situation be. A respondent described a conflict situation they had at work. The respondent was a team leader and one of his/her team members got upset and unfriended the respondent on Facebook. The subordinate had resigned from the company a while ago and they disputants had not settled their conflict:

> "No [it did not get resolved]. It was left hanging. I thought of sending a text message or an e-mail but then I thought it would be for nothing. They do not work here anymore and therefore I do not have to be in contact with them. So this was it." R4

The respondent considered sending their old team member a text message or an e-mail. The respondent came to a conclusion that there were no reasons for that as the other disputant had left the company and they didn't have to be involved anymore. The respondent avoided social interaction between them, and more accurately they avoided contacting the other disputant via technology-mediated means.

A dominating style of conflict management was present in the escalatory situations. Respondents described direct orders were given to the workers of the company and the social interaction between disputants was unidirectional. A situation escalated in a workplace so that two disputants were debating over company rules and the other dispute, subordinate, refused to wear clothes that were suggested by the company. A team leader, a respondent, instructed to use the uniform that the company suggested:

> "The instructions say that one has to have this kind of uniform. -- Now, there has come [new] instructions that it has to be duty officer's uniform. They did not get it. I reached out to my superior." R4

The respondent had told the subordinate face-to-face to use the assigned uniform and then sent an e-mail to all the employees about the clothing instructions. When these procedures did not work, the respondent turned to his/her supervisor. The respondent described the communication to have been more one-sided from her side. I got the perception that the respondent was just giving orders and did not discuss the topic openly

Some participants also described incidents where members of the work community behaved passive-aggressively. People were not directly rude or commanding but suggestions and minor ultimatums were made. One workplace was on strike and a respondent described how their personnel manager expressed their concerns about the ongoing situation:

> "Strike was about to begin -- Personnel manager gave long stories of how we all need to pull together now and everyone should think whether one wants to harm the company or be jovial and trustworthy, and altogether this team player and come to work." R1

The personnel manager appealed the workers' loyalty to the company, which would have meant not staying on the strike. The style the manager used was perceived to be passive-aggressive, not direct, but very recommending and suggestive. The company was perceived to be the personnel manager's main concern, not the people directly. The social interaction between the disputants was carried out technology-mediated means, via mailing list, and the personnel manager was trying to influence the respondent's work performance by requesting not to take part in the strike.

Factors of escalated conflicts. As the previous stories of conflict management show social interaction and technology-mediated factors were widely present in the escalatory situations. In addition to those two factors, the factor of work environmental issues occurred. Conflicts were tried to manage in social interaction situations of which many occurred via technology, in e-mails and mailing lists, and in some occasion, the work performance of the employees was tried to influence. Technology itself was also described as a medium of escalation, not just the forum for escalation. A participant explained the usage of e-mails in their workplace on a general level:

> "Even though e-mail is the same for everyone, you might get it wrong and talk about it to someone -- you can remember things in wrong order or exaggerate some words, some things. So it can be out of the context and the person still talks about it. Eventually, when someone starts to check, the original e-mail is dogged out, the person finds that there is nothing that sort of there [in the e-mails]. Those [incorrectly remembered and understood situations] have occurred, especially between managers." R6

The e-mail was described to be a grapevine that created twisted memories and wrongful meanings to issues, which then escalated in conflicted situations.

Conflict management styles of de-escalatory conflict situations. Conflicts were managed in situations that de-escalated by the means of third party help and integration. The style of emotional expression was also described but a respondent explained that they more accurately managed the conflicts by not expressing the emotions. Instead of emotional expression the respondent chose to use e-mails. The third party was used as a way of management in some of the occasions. Although, the third party that was used to negotiate did not always come outside the workplace. The idea of a third party was to ease the conflict situation, give the situation a bit more perspective. A respondent described a situation, where a steward, a representative of the employees and the union, was involved in the situation while the employees were on strike. The steward had a long conversation via the mailing list with the company's personnel manager who was opposing the strike and all workers could see the e-mails that were sent:

> "—then it escalated, the steward reacted to the situation and noted they had tried, in false intentions, to blame and lure employees. – then the steward e-mailed to all in the mailing list, which had thousands of people, and reminded us what these things mean for us. – then, several e-mails went between the steward and our HR manager. They [e-mails] were on the mailing list that was read on a daily bases by thousands of people. Seemingly they stayed on a polite level, but obviously it was two people who were fighting with each other." R2

As the representative interfered the situation, the respondent described the situation began to de-escalate.

Integration was perceived to be an efficient way to manage and de-escalate conflicts. Respondents described integration situations that occurred via e-mails, video calls and in face-

to-face situations. The respondents solved problematic situations with colleagues by exchanging information and reasoning issues through all over again:

> "We went through it there, in Hangouts. When we chewed the situation, talked with their supervisor it started to calm down. They understood the bigger picture better. -- We talked things through, the primary reasons, that there were, through video." R7

A respondent described how they, members of a distributed team, settled their differences and communicated via video conversations.

A respondent described emotional expression when explaining his/her way of managing sensitive situations at workplace. One worked as a supervisor and received e-mails where subordinates portray incidents that had occurred in their workplaces. The respondent explained one does not prefer to have face-to-face talk with one's subordinates as emotions play a role then more often. Instead, the respondent de-escalates and manages workplace conflicts via e-mails:

> "I ask my employees to write me an e-mail about what really happened, that they would think for a moment. When a person starts to talk like this, face-to-face, many times emotional outbursts come first and reasoning after that. When they write things down, they have thought what to write." R6

The respondent reasoned an e-mail is a good channel to use as emotions and social cues do not show there that much, and by writing e-mails a person has thought the situation through thoroughly and this prevents and de-escalates conflicts.

Factors of de-escalated conflicts. As the previous stories of conflict management show social interaction and technology-mediated factors were widely present in the de-escalatory situations. E-mails, video calls, and face-to-face conversation were used to de-escalate conflicts. Work-environmental factors were also described as in some occasion employees were on strike and other parties tried to influence they work performance. A respondent described a situation of de-escalation, which was dealt in technology-mediated social interaction. The respondent wanted to make sure the information was delivered to all employees:

"—we [the respondent and some managers] try to send messages with managers and make sure that several reminder messages are sent --." R5

The respondent described they had used reminder messages in important work issues to assure the flow of information is well organized and every employee gets notified. One other respondent described a work environmental issue that was too much for them. The respondent asked to switch work teams as their team leader was too much to bare:

"—if the situation had postponed, it would have been unbearable, but because the groups were reorganized I received a new team leader. – it resolved the situation." R2

How and with whom the work was performed made a difference for the respondent and helped to de-escalate the conflict at work.

Conflict management styles and factors of stabilized conflict situations. Participants described conflicts that escalated and de-escalate but there was also conflicts that were stabilized. In stabilization the conflict situation reaches the point where it does not go forward nor backward, it becomes latent. These stabilized situations were described to be more positive than negative, after the conflict and conflicts were managed by avoiding and obliging through social interaction. In one occasion a participant described a situation that got stabilized. The participant explained two of their colleagues, the disputants, realized their team would have performance evaluation meetings soon and they seemed to have wanted to 'bury the hatchet' all of a sudden:

"—this situation calmed down at that point when our performance evaluation meetings begun. Also this technology expert understood that everyone would now speak up in the meetings." R3

The disputants were perceived to avoid the difficult topics and obliging as they knew the issues that created conflicted interaction at the workplace would be under discussion in the evaluations. The disputants' communication among other team members changed and also the styles they managed the ongoing conflicts.

EVALUATION OF THE STUDY

Lincoln and Guba (1985, 290–299) point out that trustworthiness of a study is pivotal when evaluating the study's worth. They place the question: "How can an inquirer persuade his or her audiences (including self) that the findings of inquiry are worth paying attention to, worth taking account of?" Trustworthiness of the current research is evaluated based on *credibility, transferability, dependability, and confirmability.*

Credibility. The credibility of the study constructs of researcher's ability to describe the reality of those under examination and their background (Lincoln and Guba 1985, 290, 294–296). It is important that the study describes particularly participants' perceptions. Conflict as a concept can be understood in different ways by different participants, and therefore it was up to the researcher to ask right questions and explain the needed information as clearly as possible. All the question participants asked were answered, and needed concepts were clarified.

As the phenomenon of conflict is something that causes stress and strong emotions occasionally, two participants thought of postponing the scheduled interview at the last minute. These participants were on holiday, and they were not sure if it would be comfortable recalling work-related issues during holidays. They reached out to me via Facebook chat, and we talked about their concerns. They were reassured that they do not have to speak about anything they do not feel they have the strength and that the biggest question related to conflict is telling the story about conflict situation, the same question that served the purpose of pre-question. The participants were also informed about their rights when the interviews took place; interviewing can be stopped at any time, or they can cancel their consent afterward if so. The participants felt after our chat conversation that they are, after all, able to participate because the questions will not be too stressful for them. So, luckily, interview sessions with them took place as scheduled. With other participants, there were no hesitations to arrive to the scheduled meeting.

Conflict is by its nature many times very sensitive issue, and it can take time and effort to get the interviewees open up. In some stories, this seemed to be the case also in this study. Either it was hard to describe a conflict story at all, even though participants had been pre-interviewed and asked if they have a story to tell, or to tell participants own role in the situation openly. Some cases the interviewees opened up properly when the interview was reaching its end. In these cases, conflict situation was revised, and more information gathered. Sometimes participants also told a story where their role was not one of the disputants, but more of a bystander or mediator.

To increase the credibility of this study, examples of interviews were described and direct quotations used. To increase this study's credibility, it would have been good to use peer scrutiny by a fellow researcher.

Transferability. Transferability of the study means, how it is possible to transfer the study into another context, does it have applicability in other contexts or with other subjects (Lincoln and Guba 1985, 290, 296–298). When using snowball method, lack of diversity in the final sample can be one of the disadvantages. Also snowballing produces relatively non-generalizable results and "cherry-picking" is to be considered in case of researcher tries to further their research agenda (Croucher & Cronn-Mills 2015, 94). In case of this study, the sample was suitable enough to cover agenda of the research, and the researcher acknowledges that it is not possible to generalize results of this study in greater amounts. In the case of diversity, the current study used data gathered from nine people different in ages and genders who held different posts in work life. Managers, as well as company owners and subordinates, were willing to participate in this research from different fields of work from healthcare to IT specialists to customer servants.

Dependability. When considering dependability, possible factors that lead to error are good to consider. (Lincoln and Guba 1985, 290, 298–299). I made sure, the technical equipment used for the interview was working as it should, and all other arrangements involved in the interview session were taken care. I also made sure, none of the respondents were in a hurry and that the interview session was suitable for everyone. Interviews were recorded in my home or the participant's home – the participant got to choose the location most suitable for

them. Also, I did not let my previous assumptions of the topic effect the interview sessions. The process of the current study's analysis and methods are described clearly, and anyone could follow them. Though the participants would probably not tell the exact same stories, there is a possibility that same topics and issues could also arise later on. A concern arises when considering dependability in the light of this research: two of the nine interviews were conducted year and a half earlier than the rest. But, when considering communication technology, any drastic changes did not occur between those time periods. The same technology and the popularity of social media were present when the first two interviews were conducted, and the participants described the same kind of technology use both occasions.

Confirmability. Confirmability involves recognizing one's own position in the light of the research (Lincoln and Guba 1985, 290, 299–300). Neutrality, real objectivity is difficult to ensure. One way to ensure this study's objectivity was to utilize theory-driven approach and respondents that have no need to be biased. It has helped with my objectivity that I had no previous knowledge of the viewpoints of the respondents. Though, I have been familiar with previous conflict studies, and have knowledge of different types of conflicts, conflict management styles, and results of the previous studies. Also, there is the question of researcher's own position. I knew some of the respondents but none that well. I made it clear to myself when looking for the participants that acquaintances were acceptable but someone who I knew better was ruled out. Every participant volunteered, and their anonymity was assured. Two of the participants hesitated to participate last minute as they were on holiday. They were not sure if they wanted to discuss conflicts and work-related issues during their holidays. After I exchanged few words with the hesitating participants, it was all good – I let them know that they only need to tell a story about occurred conflict situation at work and that they get to choose which one to tell.

Data protection was ensured in this study as good as possible – Every conversation was recorded and transferred to my laptop and stored solely in there, and in a memory stick that was kept in my home. The interview materials will be disposed after they are no longer needed for this study's purposes.

DISCUSSION

The aim of this study was to describe employees' perceptions of conflicts in workplaces when technology-mediated communication is utilized. By examining and analyzing the participants' perceptions, it was possible to understand the phenomenon of conflict in the contexts of work life, particularly workplaces, and technology-mediated communication. The aim was approached by viewing cause and effect phases of conflict process and conflicts' final results in workplaces' technology-mediated communication, and the appearance of different conflict types in causes and effects phases of conflicts, and conflict management styles in the final results of conflicts. Though this study gathered some data of face-to-face communication in workplaces, the main priority was to view the parts of the data that contain information about workplaces' technology-mediated communication. The research questions of this study were: RQ1: According to employees' perception, what origins (causes) and consequences (effects) do conflicts have in workplaces when utilizing technology-mediated communication?, and RQ2: According to employees' perception, what are the final results of conflicts in workplaces when utilizing technology-mediated communication?

The aim of this theory-driven study was carried out successfully by viewing participants' descriptions of conflicts in TMC. The findings of this study show, there are different factors that explain causes, effects and the final results of conflicts. These factors take into account different levels of human interaction and where the social interaction takes place: intrapersonal level, interpersonal level, work environmental level, and technology-mediated level. Also, the findings show different types of conflicts appear in workplaces, and the conflicts are managed in different ways in different outcomes of conflict situations.

The findings of this study show causes and effects of conflicts have four different factors: individual factors, social interaction factors, work environmental factors and technology-mediated factors. The final results of conflicts, the outcome of causes and effects, where the conflict situation led the participants, have three factors: social interaction factors, work environmental factors and technology-mediated factors. The final results of conflicts also

have different conflict management styles in conflict in different outcomes that are conflict escalation, de-escalation, and stabilization. Three different conflict management styles that appear in conflict escalation are avoiding, dominating, and passive-aggressive. The management styles that are used in de-escalation are third-party help, integrating, and emotional expression. Avoiding and obliging are used to stabilize conflicts. Individual factors were not looked at the final results of conflicts, as conflict management generally involves the minimum of two people when handling interpersonal conflict (see Rahim 1983, 1992). Also, there is interconnectedness between the factors and their resulted themes: some of the themes, e.g., power and status, and avoiding, are placed under more than one main factor, and therefore, one theme, or result, is not exclusively under just one main factor or conflict management style.

The causes and effects of conflicts. The results, and themes, of individual factors of causes of conflicts, are personality, communication style, and power and status. Study shows (Baron, 1989) that in a general level individual characteristics are seen to be causes of conflicts. The findings of this study agree with Wall and Callister (1995, 518–519) study that personality causes conflicts, and in this case, it causes conflicts in workplaces in technology-mediated communication. Other findings of this study are individual's communication style, and the use of power and personal status in workplaces' technology-mediated communication. The results of individual factors of effects of conflicts are no effects and physical issues (anxiety, stress, and anger). The results of this study agree with Wall and Callister (1995, 523–527) as both studies see some of the effects are physical. The current study also found conflicts occasionally have no effects on individuals. Technology-mediated conflicts' causes and effects occur on the individual level, but they are not perceived to have similarities, common themes, in this study: causes and effects of conflict in workplaces differ from another.

The results, and themes, of social interaction factors of causes of conflicts, are previous history, the flow of information, power and status, and relational conflict. This study's interpersonal level reasons are similar to Wall & Callister's (1995, 518–522) categories of conflict reasons that are previous interaction and history, different communication problems and power struggles as conflict causes. The results of social interaction factors of effects of conflicts are positive interaction, mediation, avoidance and relational conflict. Conflicts' effects on interpersonal relationship are seen to be negative (Wall & Callister 1995, 523–527).

Nevertheless, the current study shows conflicts can create positive interaction in TMC. The current study and Wall and Callister (523–527) see people avoiding others as a behavioral effect. The current study also found mediation as a positive effect that occurs in a conflict situation. The respondents mediate conflict situations in their workplaces as a result of technology-mediated conflicts. This study's findings also show that relational conflicts are causes and effects of conflicts, so, there are some similarities and interdependence between causes' and effects' social interaction factors. This study's causes for relational conflicts are, e.g., "chemistry" issues. Jehn (1997, 530–532) also reasons relational conflicts emerge when people perceive interpersonal incompatibility between disputants. The current study sees an effect of relational conflict is such as repeated conflict situations – people are repeatedly in conflict with each other because of relationship issues. In some occasions, relational conflict is also a cause and effect of relational conflict that goes forth and back repeatedly in workplace's interpersonal communication.

The results, and themes, of work environmental factors of causes of conflicts, are work performance issues, management issues, cultural issues, task and process conflicts, and long-term conflicts. Wall and Callister's categorization for conflict causes does not directly refer to any of this study's findings that are on work environmental level as they don't see the conflict causes to be on a work level. Yet, Wall and Callister (1995, 523–527) found various conflict effects on work environmental level, e.g., turnover, absenteeism, enhanced in-group loyalty and cohesiveness, discrimination against out-group, and contentious group. This study's results of work environmental factors of effects of conflicts are the rearrangement of work, and it has similarities to Wall and Callister study. The current study found conflict causes in work performance issues, management issues and process conflicts and these findings are supported by Jehn (1997) study that sees process conflicts harmful to job satisfaction and work performance. On the contrary, task conflicts are seen to be positive on moderate levels and have been shown to be beneficial to group performance (Jehn, 1997; Jehn & Mannix, 2001). As in this study's circumstances, task conflicts emerged from minor issues, such as no one completed a work task and checked errors from a file. Cultural issues are also seen as a cause for conflicts in this study, as they have been seen in some past studies (Ting-Toomey & Kurogi 1998, 189).

When reviewing the current study's technology-mediated factors, the overall research by Wall and Callister (1995) is not fully applicable because they view conflicts and the conflict cycle generally, not in technology-mediated environments or in technology-mediated communication. Even though Wall and Callister (1995) lacked the aspect of technology-mediated factors, its findings can be applied to work life and workplaces communication in general.

The results, and themes, of technology-mediated factors of causes of conflicts, are communication style in TMC, technology-mediated interaction, and e-mail as a medium. The findings of this study show that the way people interact via technology can cause conflicts as some people are perceived to communicate in negative ways via technology. The technology-mediated interaction itself causes conflicts as it alone is not perceived to be enough in case of a distributed team – the interaction would need some face-to-face communication as well. This study, therefore, agrees with Wakefield et al.'s (2008) findings that conflicts can emerge in distributed teams because of geographical reasons and dispersion. The current study also found communication via e-mail as a particular cause of conflicts. E-mails are not used or read as often as they should be, and e-mail provides the medium, and a forum, where conflicts are easy to get started.

The current study's results of technology-mediated factors of effects of conflicts, are, effects on social media – unfriending, effects on video, effects on e-mail and instant message, and relational conflict, i.e., the findings of this study show that conflicts affect a wide range of different communication media where relational conflicts are widely present. Effects on social media result as unfriending others on Facebook. For some people, social media is a public forum where to argue with others and participate in conflicts (Meluch & Walter 2012, 32) as it was in the current study. Results show if people react or comment on Facebook, and the account holder is not happy about the activity, it can result in ending the relationship on social media. Tong and Walther's (2011) study support this study's findings as they found people exploit features of different media as blocking or rejecting unwanted followers. The effects of conflict are also seen in video conversations; it was the place where contradictions were brought out, e.g., between two distributed team members after the quarrel had started in an e-mail exchange. Different communication technologies are used in sequence when people are trying to persuade their colleagues in workplaces (Stephens et al., 2008) as found in the

current study. The findings also show conflicts have effects on the use of e-mails and instant messages, as they were found to send in workplaces after conflict situations emerged. Also, thoughts about the occurred conflict situations are exchanged via e-mails in mailing lists and privately in instant messages. D'Urso and Pierce's (2009) study show e-mail and internet are the most used technologies in workplaces which are supported by this study's findings. This study's results show relational conflicts are effects of technology-mediated conflicts and they are expressed in such a way that it was found to end the online and private life relationships.

All in all, all types of conflicts, relational, task, and process, occur in technology-mediated workplaces as causes of conflict in the current study. As for the effects of conflicts, only relational conflict types are seen as effects. Both kinds of conflicts, positive and negative by their nature, are seen. So, against previous studies of relational conflicts (Amason, 1996; Jehn, 1995), some relational conflicts can end with positive results, and in this study's case in the context of workplaces' technology-mediated communication as relational conflict resulted in positive interaction between two distributed team leaders via video. Though negative effects of relational conflicts are relatively wide, participants described how conflicts on a personal issue ended their relationships on social media. Altogether, all types of conflicts occur in workplaces' technology-mediated communication. Particularly, relational conflicts are widely present, and they are seen, at the same time, as causes and as effects of conflicts. Relational conflicts occur to be causes of conflicts in social interaction factors – conflicts were perceived in participants interpersonal relationships in workplaces and carried out in social interaction. As effects, relational conflicts are seen in the social interaction in TMC, i.e.; effects are seen in interpersonal level and especially via different communication technology. Therefore, findings of this study show conflicts, especially relational, are born in employees' overall social interaction, and they affect workplaces' social interaction, especially technology-mediated interaction.

In altogether, the findings of this study show, social interaction via communication technology and especially via e-mail is wholly, or in part, common and remains a surprisingly popular conflict cause. E-mail is also a medium wherein effects of technology-mediated conflicts are seen. Additionally, the effects of conflicts' are also seen in social media, video conversations, and instant messages. D'Urso & Pierce's study (2009, 1–2) agrees with this study's findings as they see that textual based communication is preferred although video chat

and video conferencing are available. Yi-Hui Lee and Panteli's (2010) study shows that e-mail, as a preferred communication media itself does not contribute to conflict escalation, but can show signals of contributing to one. This study supports the claim that e-mail can signal to contribute to a conflict situation as a cause or as an effect. Communication technology is present almost in every workplace nowadays, and technology-mediated communication concerns many. The use of e-mail is surprisingly wide despite there are several other technologies available nowadays. The role of e-mail might be explained so that people are not too keen on adapting new media for work use, or organizations, even though having new technology in use, have not fully adapted the use of new media or are not providing enough training for their usage as should be nowadays done.

The final results of conflicts. The current study shows three different kinds of main factors explain the final results of conflicts, the outcomes of causes and effects. These factors are social interaction factors, work environmental factors, and technology-mediated factors. Conflicts also have three different kinds of final outcomes as conflicts can either escalate, de-escalate or stabilize in a given situation.

This study shows that in conflict escalation avoiding, dominating, and passive-aggressive management styles were used. As these styles led consequently to conflict escalation, they have a negative connotation in case of this study when referring to conflict escalation. Ting-Toomey et al. (2001, 88) found avoiding as negatively disengaged, but Rahim (1992, 30) sees avoiding and dominating styles are effective in conflicts involving tactical, daily, or routine problems. Sargent (2002) found conflict avoidance is harmful in general, especially when some topics are avoided. In case of this study, avoiding was connected to avoiding other people, avoiding social interaction, e.g., not sending a text-message or making a phone call. Tough this study's conflict management in escalatory situations was not connected to tactical, daily, or routine problems as in Rahim's (1992, 30) study, findings of this study show avoiding was more connected to relational issues, topic were avoided, and it led to, or, was used in escalatory situations. When the dominating style was used, it was a very unilateral mean to manage conflicts when considering the social interaction between conflict disputants. The current study agrees with Rahim (1992, 29) that supervisors are likely to use their power and position to get their way. Results show supervisor used dominance by giving direct orders and subordinates were left with little chance to discuss the instructions the supervisor gave via

e-mail and face-to-face. The passive-aggressive style was not perceived to be effective, and it was seen to cause more harm than ease the conflict. The style was used via e-mails, and it made the employees trust less the other conflict party. Conflicts were perceived to escalate in social interaction levels, in work environmental levels, and in technology-mediated levels. Therefore, the findings of this study show conflict escalation takes place in employees' all over social interaction and in their technology-mediated interaction in work environmental level.

The current study's findings show third-party help, integrating, and emotional expression were used in de-escalating workplace conflicts. It can be generalized, to some extent, that integrating and compromising styles are effective in dealing with conflict with strategic or complex issues (Rahim 1992, 30). In case of this study, integrating was seen as a good management style particularly in complex situations that involved several people who communicated partly via technology (video calls and e-mail) and partly face-to-face. Third-party help, an outsider is used to mediate the conflict, was found to be useful in technology-mediated conflict situations. The third party took a stand in an argument between HR manager and employees of the company, and openly discussed the issues with the HR via the mailing list. According to Ting-Toomey et al. (2001, 89), a person's own emotions can guide communication behaviors during a conflict. In this study, emotional expression was used to prevent conflicts, and actually, the management style was that people would not show their emotions. E-mail was preferred over face-to-face communication as people's emotions don't show in the same way in e-mails as they do in face-to-face situations. Preventing emotional expression was perceived as a de-escalating style. Altogether, conflicts were perceived to de-escalate in social interaction levels, work environmental levels and technology-mediated levels. Therefore, the findings of this study show, conflict de-escalation takes place in employees' all over social interaction and their technology-mediated interaction in work environmental level.

This study shows employees used avoiding and obliging as means to stabilize conflict situations. As for the stabilization of conflicts, when the conflict situation stays still and has become latent, social interaction was the mean of stabilizing the situation, i.e., the conflict stabilization was perceived to occur purely in social interaction level. Also, this study's results show, that there were more positive descriptions of latent situations than negative

ones. Therefore, stabilization is closer to de-escalation than it is to the escalation of conflicts, even though the management styles avoiding and obliging are not seen as the best ways to manage conflicts as according to Ting-Toomey et al. (2001, 88) and Sargent (2002), avoiding and obliging are negatively disengaged.

Conflict cycle. The Wall and Callister (1995) model of conflict cycle was used for this theory-driven study's purposes. For this study's purposes, the model did not implement the outcomes/the final results of conflicts thoroughly enough and their description of conflict cycle was insufficient. Conflict cycle is described by Wall and Callister (1995, 516): "As with any social process, there are causes; also, there is core process which has results or effects. These effects feed back to affect the causes. Such a conflict cycle takes place within a context (environment) and the cycle will flow through numerous iterations".

As this study sought answers (RQ2) to employee's perceptions of final results of conflicts in workplaces' technology-mediated communication, the cycle should better implement that there is such a thing as final results and that they belong to the cycle. The Wall and Callister (1995) description does not tell what comes out of the cycle, what are the final results of conflicts. In this study's case, the results are conflict escalation, de-escalation and stabilization. My input for the model was adding the final results within (see Model 2).
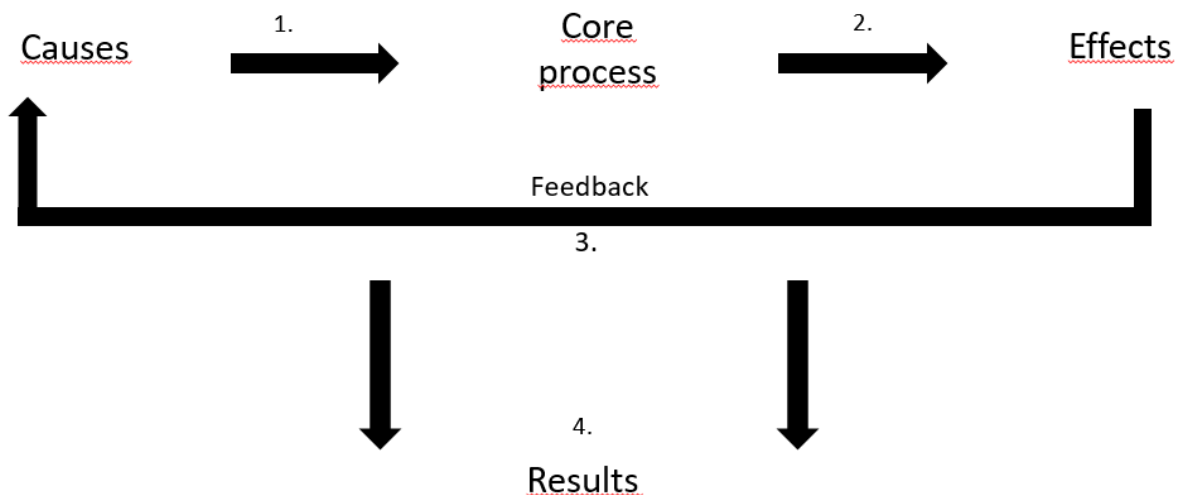
MODEL 2 Conflict cycle and the final results of conflict

Causes (1): issues and reasons that caused the conflict*; Core process* (2): a middle stage where conflict moves and shifts from causes to effects; *Feedback* (3): conflict interacts between conflict's causes, core process, and effects that make the conflict cycle around. *The final results* (4): the outcome of the cycle which emerges as conflict escalation, de-escalation, and stabilization.

The current study showed different kinds of causes and effects of conflicts and what can result out of these multiple causes and effects. The conflict, positive or negative, needs a catalyst. Causes, effects, and their feedback are the catalyst that results in different outcomes that can be either positive or negative. This study did not examine core processes or feedback thoroughly enough that it could take a stand what is their meaning and role in conflicts' final results. The study was only able to describe different causes, effects, and different outcomes of technology-mediated conflicts. My suggestion is that the future research should examine conflicts' core processes and the feedback process more thoroughly, and also what has been there before, what is the story, the social interaction behind the people and the situations – where did it all began.

CONCLUSION AND FUTURE STUDIES

From the viewpoint of technology-mediated communication in workplaces, it is important to understand different kinds of causes and effects of conflicts, and the outcomes of these conflict situations – what will the conflicts do for the workplaces' interpersonal communication. It is also important to understand different conflict management styles that exist and can be used in technology-mediated communication.

This study shows causes and effects of conflict are seen in individual, social interaction, work environmental, and technology-mediated levels, where different kinds of conflicts emerge. The conflict types that caused conflicts in TMC were on relational, task, and process levels. As for the effects of conflicts, in workplaces' TMC only relational conflict types were seen as effects. In this study, both kinds of conflicts emerged, positive and negative by their nature. It is significant that contrary to previous studies of relational conflicts (Amason, 1996; Jehn, 1995), some relational conflicts ended with positive results in the context of workplaces' technology-mediated. Though, there were wide negative effects of relational conflicts. Conflicts were perceived in the participants' interpersonal relationships in workplaces and carried out in social interaction. As for the effects, relational conflicts are seen in the social interaction in TMC, i.e., effects are seen in interpersonal level and especially via different communication technology. Therefore, findings of this study show conflicts, especially relational, are born in employees' overall social interaction, and they affect workplaces' social interaction and especially technology-mediated interaction.

The results of this study show, social interaction via communication technology and especially via e-mail is wholly, or in part, common and remains a surprisingly popular conflict cause. E-mail is also a medium wherein effects of technology-mediated conflicts are seen. Besides, the effects of conflicts' are also seen in social media, video conversations, and instant messages.

Outcomes of conflicts, the final results, are seen in social interaction, work environmental, and technology-mediated levels in conflict escalation and de-escalation. In stabilization results are seen in social interaction level. Conflicts also have different conflict management styles in different outcomes (final results). Three different kinds of conflict management styles that appeared in conflict escalation are avoiding, dominating, and passive-aggressive. The management styles that were found in de-escalation are third-party help, integrating, and emotional expression. In conflict stabilization avoiding and obliging were used.

Results of this study help to understand technology-mediated conflicts in workplaces. Based on this study's results, it is possible to anticipate the kinds of conflicts that occur in technology-mediated communication and utilize their different kinds of management styles. The results of this study can help individuals, work communities, workplaces and even technology-oriented companies to understand the meaning of technology-mediated conflicts and help them to manage them. It would also be pivotal to make employees and companies understand the necessity of conflicts and their ability to improve individuals and workgroups quality of work. Though, it is important to understand conflicts' negative results as well.

Based on the previous studies (Amason, 1996; Jehn, 1995) and the current study's results, it is possible to assume that relational conflicts are widely common in workplaces and in workplaces' technology-mediated communication. This means future research should focus more on relational conflicts in TMC. It would be important to understand the factors of technology-mediated relational conflicts that lead to either positive or negative results. The aim of the research would be to understand the characteristics of relational conflicts that have positive outcomes. Also, another research idea for future studies would be to study intercultural work communities that operate solely online and to understand their conflicts and conflict management.

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