

OGUZ, ABDULLAH, Ph.D. Cyberbullying in Global Virtual Teams. (2020)  
Directed by Dr. Prashant Palvia. 361 pp.

Workplace mistreatment towards employees has been a material issue, investigated by various disciplines increasingly since the 1990s. With the advent of the Internet, and utilization of a wide variety of online media, workplace bullying, as one of the severe types of mistreatment, has expanded to cyberspace beyond the physical boundaries of an office. It has also acquired distinct characteristics such as the anonymity of perpetrators and spatial and temporal permanence of materials posted online.

Workplace cyberbullying includes any behaviors intended to inflict harm or discomfort on a coworker or a group of coworkers who cannot easily defend themselves. Within the workplace environment, global virtual teams (GVTs) have become increasingly common since they could provide convenience to individuals, teams, and organizations to perform their tasks and responsibilities from different locations across the world by relying totally on virtual communication and collaboration tools. While task-related and interpersonal conflicts have been extensively investigated in the extant literature for GVTs, cyberbullying remains as an unknown phenomenon which might hinder the effectiveness and performance of GVTs and organizations.

This research fills the gap in the literature on cyberbullying in GVTs, which are globally dispersed, and culturally and functionally diverse teams that rely on advanced technology for communication, collaboration, and coordination. This research creates an opportunity to understand the extent of cyberbullying in GVTs, to elaborate on its antecedents, moderators, and consequences, and to explicate the role of ICTs on the

occurrence and prevention of cyberbullying. The routine activities theory is utilized to explain how opportunities for cyberbullying victimization are produced, and everyday workplace routines and lifestyle behaviors expose victims to risk.

In this dissertation, three studies were carried out. In the first study, a qualitative thematic analysis of a large data corpus was conducted. The second study consisted of fifteen semi-structured interviews conducted with GVT members. These two studies led to the production of an instrument that aimed to measure the antecedents, moderators, and consequences of cyberbullying victimization of GVT members. This online survey instrument was distributed to employees who participated in at least one GVT in the last three years and experienced or witnessed cyberbullying behaviors.

All three studies probed into the cyberbullying behaviors, which could be detrimental to GVTs and their members. Routine activities theory has provided us with the underpinnings that have enabled the determination of the antecedents, which could lead to cyberbullying victimization in GVTs. Organizations can benefit from this research and its outputs to assure healthier and more effective GVTs. Besides, future studies and organizations could utilize this novel theoretical framework and GVT cyberbullying instrument to investigate workplace cyberbullying and other types of cyber mistreatment and aggression.

CYBERBULLYING IN GLOBAL VIRTUAL TEAMS

by

Abdullah Oguz

A Dissertation Submitted to  
the Faculty of The Graduate School at  
The University of North Carolina at Greensboro  
in Partial Fulfillment  
of the Requirements for the Degree  
Doctor of Philosophy

Greensboro  
2020

Approved by

Dr. Prashant Palvia

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Committee Chair

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I dedicate this dissertation to Meryem, my heart and soul,  
whose love and support made this dream attainable.

APPROVAL PAGE

This dissertation, written by Abdullah Oguz, has been approved by the following committee of the Faculty of The Graduate School at The University of North Carolina at Greensboro.

Committee Chair Dr. Prashant Palvia

Committee Members Dr. Al Salam

Dr. Vasyl Taras

Dr. Nikhil Mehta

Dr. Cindy Brooks Dollar

September 10, 2020  
Date of Acceptance by Committee

September 10, 2020  
Date of Final Oral Examination

## ACKNOWLEDGEMENTS

I would like to acknowledge the immense support and encouragements that I received from several individuals whose contributions have made this research a success. First, I would like to express my profound gratitude to my Dissertation Chair, Dr. Prashant Palvia, for his willingness to share his research and life expertise as we ventured into this new realm of information systems research. His guidance, support, encouragement and enthusiasm made this dissertation possible. He has been an invaluable mentor and a great friend who has helped guide me on this huge endeavor. I would also like to thank my four dissertation committee members, Dr. Nikhil Mehta, Dr. Vasyl Taras, Dr. Cindy Brooks Dollar, and Dr. Al Salam, who have always generously shared their wealth of knowledge, expertise and guidance to help make this research a success. Dr. Vasyl Taras, the founder of X-Culture, provided me with a huge data corpus which assured me to conduct Study 1, and revealed very interesting and useful results. I would like to also express my sincere gratitude to Dr. Vidyaranya Gargeya (one of my mentors, and the head of department when I started the PhD program), Dr. Gurpreet Dhillon, current head of department, and the rest of the ISSCM faculty members of UNC Greensboro for their invaluable support and advice.

I would also like to acknowledge those individuals who provided non-scholarly but critical support during this endeavor. A special “thank you” goes out to my father, Dr. Hasan Oguz, MD, for always supporting me, and believing in me. I also would like to thank my family members and friends for their immeasurable support and for being the source of inspiration that has kept me busy all the time.

All of you had an important role in making this dissertation process a success – and I will be forever grateful.

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# CHAPTER I

## INTRODUCTION

### 1.1 Overview

Workplaces have been one of the places where mistreatment of vulnerable colleagues takes place in different forms, such as incivility, mistreatment, aggression, bullying, and harassment. This mistreatment could be in any direction hierarchically and in terms of demographic differences (e.g., age and gender), in that managers could harass subordinates, employees could harass their equivalent counterparts (coworkers), and males harass female colleagues. 2017 U.S. Workplace Bullying Survey (Namie, 2017) published by Workplace Bullying Institute revealed that 19% of Americans are bullied while another 19% witnessed it, and 61% of Americans are aware of abusive conduct in the workplace. This survey also found that 70% of perpetrators are men, 60% of targets are women, and 61% of bullies are bosses. 29% of targets reported that they remained silent about their experiences, and 40% of bullied targets were believed to suffer adverse health effects. The most significant consequence of bullying at the workplace for the victim was that 65% of targets lost their jobs to stop bullying. The survey in question used the definition of workplace bullying as “repeated mistreatment and also abusive conduct that is threatening, intimidating, humiliating, work sabotage or verbal abuse” in parallel with the definition codified in the Healthy Workplace Bill (Namie, 2017, p.1).

Bullying of school children and adolescents has been a widely investigated topic in psychology, education, sociology, and criminology disciplines (e.g., Kowalski et al., 2014; Baldry et al., 2015). Empirical research on school bullying is as early as the 1970s with Olweus' 1978 study (*Aggression in the schools: Bullies and whipping boys*) as the starting point (Hymel and Swearer, 2015). School bullying was defined as an intentional behavior committed by a school child or adolescent or a group of them to cause harm or distress on others, not only for one time but repeatedly in a systematic manner over time (Olweus, 1993; Kowalski et al., 2018a). It consists of an imbalance of actual or perceived power between the perpetrator and victim, where this systematic abuse of power brings about negative psychological consequences for the victim in the short and long terms, eventually resulting in suicide in the worst situation (Patchin & Hinduja, 2006; Hazelwood & Koon-Magnin, 2013; Slonje et al., 2013; Baldry et al., 2015).

Besides bullying among children and adolescents, traditional (face-to-face) workplace bullying has also been subject to intense research by scholars since the late 1970s (Brodsky, 1976). This research attracted strong interest, especially in Scandinavian countries in the 1990s, where they initially used the term “mobbing” to refer to bullying (Björkqvist et al., 1994; Einarsen, 1999). Leymann (1990, 1996) referred to mobbing as psychological terror in working life, which involves hostile and unethical communication towards coworkers for humiliating, intimidating, frightening, or punishing the target. Professionals in a workplace can find themselves in a helpless and defenseless position as a result of bullying activities toward them (Leymann, 1990, 1996; Einarsen, 1999, 2000). Workplace bullying occurs if a coworker is harassed, offended, socially excluded, or

carries out humiliating tasks and if the person concerned is in an inferior position (Zapf and Gross, 2001; D’Cruz and Noronha, 2013). Primary characteristics of workplace bullying can be outlined, in line with school bullying, as a systematic repetition of negative acts over time, imbalance of power between the perpetrator and the target, and intention by the perpetrator to harm the target (Leymann, 1996; Zapf and Gross, 2001; Einarsen et al., 2011).

In parallel with the advent of the Internet and utilization of a variety of media within this online platform, bullying has been expanded to cyberspaces, which are online/digital platforms where virtual interactions occur without a need for physical proximity. Accordingly, this novel bullying phenomenon has acquired distinct characteristics such as the anonymity of perpetrators and spatial and temporal permanence of materials that are used for cyberbullying. Deviant acts have been diversified with the introduction and utilization of ICTs such as laptops, smartphones, and tablets, and e-mails, text messaging, websites, personal blogs, social networking sites (e.g., Facebook, Twitter), video-posting websites (e.g., YouTube), virtual worlds (e.g., Second Life) and enterprise social media (ESM). Consequently, and as a matter of fact, bullying that has occurred mostly in physical environments has been evolved and expanded to contain online opportunities for perpetrators to harass vulnerable individuals and groups (Dooley et al., 2009; Slonje et al., 2013).

Research on cyberbullying among school children and adolescents is well-established in the literature in parallel with face-to-face bullying research (Slonje and Smith, 2008; Baldry et al., 2015). Cyberbullying among college students was also

examined in the literature to a lesser extent (Doane et al., 2014; Whittaker & Kowalski, 2015). Although the cyberbullying literature is inundated with research on school children and adolescents, these negative behaviors are not only confined to adolescents, children, and young adults (especially college students), but they also extend to older ages throughout the life span (Barlett & Chamberlin, 2017). In parallel with cyberbullying among children and adolescents, and with already-existing face-to-face adult and workplace bullying, cyberbullying has also become a critical and salient issue for employees. Recent studies have started to examine adult cyberbullying (Lowry et al., 2016), and mostly workplace cyberbullying (Privitera and Campbell, 2009; D’Cruz & Noronha, 2013; Farley, 2015; Coyne et al., 2017; Zhang and Leidner, 2018). Lowry et al. (2016) reported in their literature review that there was only one study out of 64, which provided empirical evidence for non-college adult offenders. The consequences of cyberbullying behavior towards coworkers could be very similar to those of adolescents and adults, such as desolation, depression, and committing suicide. However, cyberbullying that occurs beyond the physical boundaries of an office or factory could have more severe consequences than those of traditional bullying that have a more limited impact. Furthermore, traditional workplace bullying can be linked to the cyberbullying of coworkers, in that traditional bullying might accompany cyberbullying. However, traditional bullying was generally found to be more prevalent than cyberbullying (Gardner et al., 2016).

Cyberbullying has been defined by Smith et al. (2008) as ‘an aggressive, intentional act carried out by a group or individual, using electronic forms of contact,

repeatedly and over time against a victim who cannot easily defend him or herself’ (p. 376). However, initial studies, including Smith et al.’s often-cited study (2008) assessed cyberbullying as a simple extension of traditional face-to-face bullying, by merely adding electronic communication tools in the definition (Li, 2006; Forssell, 2016). Recent studies distinguished unique characteristics of cyberbullying, which separates it from traditional bullying (Kowalski et al., 2012; Forssell, 2016; Kowalski et al., 2018a). These features have been indicated as (1) the permanence of offensive information posted online, (2) the difficulty of getting away from victimization due to the permanence of this information on digital platforms after it is saved and shared by others (Slonje and Smith, 2008), (3) the breadth of a potential audience all across the world which is not confined to a limited number of people or groups such as classmates, coworkers and a small community (Hazelwood & Koon-Magnin, 2013, Forssell, 2016), (4) anonymity that can effectively disguise the perpetrators (Hazelwood & Koon-Magnin, 2013, Forssell, 2016) and (5) online disinhibition effect which make people say and do things in cyberspace that they wouldn’t say and do in the face-to-face world (Suler, 2004; Lowry et al., 2016).

Due to the widespread use and distinguishing characteristics of online applications, platforms, and ICTs, and depending on the purpose of cyberbullies, cyberbullying can encompass a wide variety of negative behaviors. These behaviors used by offenders against a target or a group of targets could be direct such as rude, insulting, or offensive messages sent to the target via email or persistent criticism of target’s work and performance made in an online work group or discussion forum accessible to all employees. Second, they could be indirect such as spreading rumors and gossips about

the target on a social media group or not including the target in email lists (Privitera and Campbell, 2009; Farley et al., 2016; Jönsson et al., 2017). As is in the bullying literature, more than one term has been used for cyberbullying either interchangeably or with the purpose of highlighting minor or major differences with it. These terms include, but not limited to, cyber harassment, online mobbing, cyber aggression, cyber incivility, cyber abuse, cyber sexual harassment, and online or electronic bullying or harassment (Hershcovis, 2011; D’Cruz & Noronha, 2013).

Recently, global virtual teams (GVTs) have become common in organizations since they provide convenience to team members to perform their tasks and achieve their responsibilities from different locations anywhere around the world by relying totally on online collaboration tools (Axtell et al., 2004). According to the “2018 Trends in High Performing Global Virtual Teams” survey conducted by Culture Wizard of RW3 on 1,620 respondents from 90 countries, 58% of respondents reported that they were part of at least a virtual team whereas 42% replied that they were part of teams with no virtual team members (Culture Wizard, 2018). Respondents were also asked to compare the difficulty level of communication between virtual teams and face-to-face teams, and 84% reported that it was more challenging to communicate in virtual teams due to the lack of immediate feedback and visual cues of gestures. “2020 Trends in Global Virtual Work” report from the same organization overlapped with the COVID-19 pandemic. This recent report provided new insights into the new normal period (Culture Wizard, 2020). Around 2,700 respondents from 106 countries filled in the surveys and nearly 70% of respondents reported that they want to continue working from home at least half of the time. In this

new report, 33% of respondents also indicated that managing conflict was challenging in virtual environments. This new data suggests the importance of GVTs and challenges that can be encountered during virtual interactions.

While many collocated employees may be from diverse working backgrounds and having different demographic features, in a GVT, team members communicate and collaborate through ICTs, and their in-person communication stays in a superficial level, if not in most of the cases (Jarvenpaa and Leidner, 1999; Sarker et al., 2011). Despite the proliferation of virtual teams, to the best of our knowledge, extant literature has not examined cyberbullying and any other types of workplace mistreatment that may occur in national or global virtual teams so far. However, conflict is among the most investigated concepts in virtual team research (Gilson et al., 2015).

Extant literature has focused on and investigated the dynamics and consequences of cyberbullying at workplaces, where perpetrators and targets share the same physical premise and interact in person. Thus, within the workplace cyberbullying research, which is in its nascent stage, some areas still need to be explored, and further research is required to develop insights for academic research and managerial practice (Gardner et al., 2016; D'Souza, 2017). Among those, to the best of our knowledge, cyberbullying and any other types of workplace mistreatment in national or global virtual teams have not been studied in the extant literature. While many collocated employees may be from diverse working backgrounds and having different demographic features such as age, gender, ethnicity, nationality, and education level, in a virtual team, team members communicate and collaborate utilizing ICTs. Their in-person communication stays at a



very low level, if not in most of the cases. Virtual teams are becoming increasingly common since they allow individuals to perform their tasks and responsibilities required by their work from different locations, including telecommuting (Axtell et al., 2004). Therefore, the association between traditional bullying and cyberbullying weakens significantly or disappears utterly contrary to the findings for collocated teams. In this study, we specifically examine cyberbullying in global virtual teams. Global virtual teams (GVTs) are globally dispersed and culturally and functionally diverse teams that rely on advanced technology for communication, collaboration, and coordination, and that are assembled and disbanded as needed (DeSanctis & Monge, 1999; Sarker et al., 2011; Cheng et al., 2016).

Although conflict is among the most investigated concepts in virtual team research (Gilson et al., 2015), workplace mistreatment in general, and bullying in particular, against a coworker or a group of coworkers, have not been examined so far. Since the usage of virtual teams has increased due to the richness and diversity of collaboration software and tools, and willingness of organizations to utilize it as an effective task management platform, it would not be surprising to witness different types of aggression with varying intensity and severity towards team members in GVTs.

In this research, we are using the concept of “cyberbullying” instead of other alternative terms such as online workplace mistreatment, cyber aggression, cyber harassment, or cyber incivility. We define GVT cyberbullying as “the use of text, images or videos that contain inappropriate, vulgar, offensive, hostile, negative, derogatory, or false comments using electronic forms of contact via ICTs by an individual or a group

with an intent to (1) harm or hurt to humiliate, defame, threaten, or stalk a coworker or a group of coworkers who are members of a GVT; (2) to attack their personalities; (3) to ignore, exclude or discriminate against them in work-related or social contexts; (4) to disclose their personal information; or (5) to criticize their work performance unfairly and negatively (Slonje and Smith, 2008; D’Cruz & Noronha, 2013; Cassidy et al., 2014; Forssell, 2016; Jönsson et al., 2017). Cyberbullying behaviors against GVT members may repeatedly occur by the perpetrators. However, the permanence of the offensive information posted online due to the convenience of saving, copying and pasting, sharing and also the breadth of audience worldwide could create a different type of repetitiveness not only performed by the perpetrator but by everyone involved in spreading the content (Slonje and Smith, 2008; Forssell, 2016). A GVT member can also cyberbully another member regardless of physical power imbalance. The perpetrators in GVTs may find themselves in a more powerful position when they have better computer skills, verbally more fluent, and outnumbered with more perpetrators or with more deviant peer support (Smith et al., 2012). Besides, power imbalance might be in favor of cyberbullies when targets lack confidence or self-esteem, lack friends or social support, and have low social status in their peer groups (Smith et al., 2012; Jönsson et al., 2017).

This research utilizes routine activities theory (RAT) to explain how opportunities for cyberbullying victimization are produced by individuals’ everyday routines and lifestyle behaviors that expose them to risk (Hindelang et al., 1978; Cohen and Felson, 1979). RAT posits that for a predatory crime to occur, three necessary elements must be present simultaneously: (1) Presence of potential offenders, (2) presence of suitable

targets, and (3) absence of capable and willing guardians (Cohen and Felson, 1979; Cohen et al., 1981). RAT was applied to various forms of street crimes and delinquency with excellent explanatory power (Holt and Bossler, 2009). Target suitability is assessed based on four criteria, that are value, inertia, visibility, and accessibility of crime target (Cohen and Felson, 1979; Felson and Clarke, 1998). Some targets may offer more tempting crime opportunities due to the availability and level of these four elements (Felson and Clarke, 1998). Value refers to “the material or symbolic desirability of persons or property targets to potential offenders”; inertia refers to how easily a target can be removed or overcome by the offender; visibility refers to the extent to which an offender knows that a target exists and knows about its whereabouts; and accessibility addresses the ability of an offender to get to the target and then to get away from the scene of crime easily (Cohen and Felson, 1979; Cohen et al., 1981; Leukfeldt, 2014; Wang et al., 2015). Guardianship implies that other people or objects are present to discourage motivated offenders from acting upon criminal opportunities and potentially prevent the occurrence of a crime (Cohen and Felson, 1979; Cohen et al., 1981).

In the literature, RAT was utilized to explain various online crimes, such as malware victimization, cyberstalking, online harassment victimization, cyberbullying, computer crime victimization by implantation of viruses, phishing, online piracy, online consumer fraud victimization, online identity theft, and risk of insider threats (see section 3.1 for references). RAT was also used to investigate multiple online crimes (Ngo and Paternoster, 2011; Leukfeldt and Yar, 2016). Owing to the explanatory power of the theory and its successful implementation in various online deviances and crimes, GVT

cyberbullying is considered to be a good candidate that could utilize RAT. It is hypothesized in our study that suitable target elements (value, visibility, and accessibility), lack of capable guardians, and communication medium related characteristics lead to opportunities for cyberbullies in GVTs. They create favorable conditions for the offender to cyberbully, which eventually leads to the cyberbullying victimization of the target. Due to the overemphasis of physical features within “inertia” and abundance of overlapping properties with “capable guardianship,” we have not included inertia in our theoretical model and hypotheses. Communication medium related characteristics consisted of the immediacy of feedback, symbol variety, anonymity, and online disinhibition effect. Another moderating construct in our model is team diversity which is composed of four types of diversity which are (1) surface level diversity (demographic differences such as age, sex, race), (2) deep level diversity (personal characteristics such idiosyncratic attitudes, values, and preferences), (3) functional diversity (team members’ functional background) and (4) cultural diversity. We hypothesize that all four levels of diversity would increase the impact of opportunities to cyberbully on the victimization of the target.

Finally, cyber victimization of GVT members would harm individuals who were cyberbullied and on GVTs where cyberbullying occurred. This dissertation examines the consequences of cyberbullying on individual targets or groups of targets in terms of job satisfaction and performance, and intention to quit. Team-related consequences will focus on team performance measured by task quality as a task-related outcome (Kankanhalli et

al., 2006) and whether schedule and budgetary constraints were met at the end of the task or the overall project.

This research creates the opportunity to understand the extent of cyberbullying in global virtual teams with their antecedents and consequences discussed. This research fills the gap in the literature regarding cyberbullying in virtual teams, particularly in global virtual teams, which have been utilized by multinational corporations owing to the ubiquity of ICTs and the advantages of virtual teams to recruit skilled human resources with less effort. A large volume of previous research had a consensus on the increasing extent of cyberbullying worldwide for all age groups and environments (schools and workplaces). Our research will help to understand better how cyberbullying in global virtual teams affects the victimized team members, team dynamics, and consequences of cyberbullying on victim's psychological, social and economic status, team's productivity and effectiveness, and ultimately the organization's performance.

## **1.2 Research Questions**

This dissertation seeks to answer the following primary question and sub-questions.

**Primary research question:** How is workplace cyberbullying understood and experienced in global virtual teams?

**RQ1.** What is the nature of cyberbullying in global virtual teams?

**1.1** What is the prevalence of cyberbullying in GVTs?

**1.2** Can Routine Activities Theory constructs predict the cyberbullying victimization in global virtual teams? Which situational vulnerabilities make GVT members suitable for victimization?

**1.2.1** How can target suitability features provide opportunities for the offender to cyberbully GVT members?

**1.2.2** What kind of guardianship lacks in GVTs that provide opportunities for cyberbully GVT members?

**1.2.3** How does the communication medium characteristics provide opportunities for the offender to cyberbully GVT members?

**RQ2.** Which factors moderate the relationship between opportunities to cyberbully and cyberbullying victimization?

**2.1** How do virtual team development stages moderate the likelihood of cyberbullying victimization of GVT members as a target?

**2.2** How does team diversity moderate the likelihood of cyberbullying victimization of GVT members as a target?

**RQ3.** What are the consequences of cyberbullying victimization in GVTs on targets and team?

### **1.3 Three Studies within the Dissertation**

This dissertation research is composed of three studies. Study 1 adopts a qualitative approach to investigate a large data corpus, which consists of 154,335 comments made by student GVT members who participate in a competition named “X-Culture.” Study 1 utilizes Braun and Clarke’s (2006) thematic analysis. We followed

their step-by-step guide in order to conduct thematic analysis on our data corpus, and derive a data set composed of themes, sub-themes, and codes. A thematic analysis follows six steps: (1) familiarizing yourself with your data, (2) generating initial codes, (3) searching for themes, (4) reviewing themes, (5) defining and naming themes, and (6) producing the report. Our analysis yielded a final dataset of 107 unique cyberbullying cases.

Study 2 aimed to complement Study 1 and was launched to get first-hand knowledge of cyberbullying issues from the perspective of business GVT members and explore and understand this novel phenomenon in more detail. In parallel with the dissertation's research questions, the primary goal of Study 2 has been to identify how and why cyberbullying behaviors occurred in interviewees' GVTs, and how they, their team leaders and members, and organizations handled these situations. For Study 2, semi-structured interviews were chosen as the primary data collection method. These interviews were conducted with GVT project managers and members, and they provided an insider view of the phenomenon (Chen, Farh & MacMillan, 1993). Our sample consisted of fifteen interviewees who live in different countries and work in GVTs. Following Braun and Clarke's (2006) qualitative thematic analysis methodology, four higher-level themes, (1) underlying causes of cyberbullying behaviors, (2) guardianship, (3) communication medium, and (4) team diversity, were identified.

Study 3 has been built upon qualitative studies. The findings of Study 1 and 2 laid the foundation along with the literature review to construct a GVT cyberbullying model and instrument that can be used for the positivist testing of our theoretical model. After

the design of the instrument, it was tested in two consecutive steps, pre-test and pilot study. After the refinement of items, the instrument was finalized and distributed to GVT members who experienced or witnessed cyberbullying in the last three years. Finally, 206 responses were obtained and analyzed using SmartPLS, a software for variance-based structural equation modeling (SEM) using the partial least squares (PLS) path modeling method. Our results supported seven of the nine hypotheses. Team diversity's moderating effect was supported partially for two diversity types that measure cultural and organizational experience.

#### **1.4 Organization of the Remainder of the Dissertation**

The chapters of this dissertation are outlined as follows: Chapter 2 conducts a thorough literature review of global virtual teams, bullying, and cyberbullying to guide the theoretical framework and analysis. Chapter 3 proposes a theoretical model with its underlying concepts. Chapters 4, 5, and 6 delineates separate studies that are conducted to investigate the theoretical model proposed in Chapter 3. Finally, Chapter 7 discusses the findings of three studies and addresses the contributions to knowledge, future research, limitations, and conclusions, respectively.



## CHAPTER II

### LITERATURE REVIEW

#### **2.1 Global Virtual Teams**

##### *2.1.1 Definition and Characteristics of Virtual and Global Virtual Teams*

A team is “a group of individuals who interact interdependently and who are brought together or come together voluntarily to achieve certain outcomes or accomplish particular tasks” (Berry, 2011, p.136). Teams are utilized in organizations to establish novel combinations of people who would work on unique problems and generate critical decisions as outcomes (Gersick, 1988). “Team” generally refers and is considered equal to project teams that are formed and used by organizations to support the completion of complex and non-routine tasks by organizing employee resources (Alavi and Tiwana, 2002). Project teams serve as critical organizational units that are established for a temporary duration with the participation of various members from an organization’s own functional units and other organizations, as well as the involvement of stakeholders who have interests in the project. However, as an essential management tool of an organization, not all teams are established temporarily, such as project teams, but there are also permanent teams (Gersick, 1988; Chae et al., 2015). Deadlines are the distinguishing factor of temporary teams (Chae et al., 2015). Functional departments in organizations such as human resources, finance, marketing, and sales can be considered as permanent teams which do not dissolve or adjourn according to Tuckman and Jensen’s

(1977) fifth stage in the small group development model, once tasks are completed. Each functional team may also consist of subdivisions inside them. Initially, “group” or “small groups” had been used in the literature instead of “team” primarily in order to refer to group decision making processes (e.g., Tuckman, 1965; Fisher, 1970; Gersick, 1988; Tubbs, 1998; Dennis, 1996). Besides, the use of a “small group” concept for the first time also referred to the groups outside the organizational context, such as therapy-groups (Tuckman, 1965).

Advances in ICTs have enabled the creation and utilization of virtual teams within organizations in the last three decades (Alnuaimi et al., 2010; Alsharo et al., 2017). These advances ensured the organizations to design their teams composed of members from different geographic locations and organizations virtually beyond a setting of same-location (Berry, 2011). Nevertheless, even though ICTs are prerequisites of virtual teams, other factors were prominent in the process of shifting from traditional face-to-face teams to virtual teams. Some of these factors could be listed as increased use of horizontal organizational structure, the emergence of environments that require inter-organizational cooperation as well as competition, changes in workers’ expectations of organizational participation, a continued shift from production to service and knowledge-intense work environments, and increasing globalization of trade and corporate activity (Townsend et al., 1998).

Virtual interactions and virtual teams cannot be considered identical concepts. That is, virtual interactions occur in collocated teams extensively, such as the widespread exchange of emails in the same office (Berry, 2011). In general, regardless of the

geographical dispersion of team members, virtual teams (VTs) can be defined as groups of two or more geographically and/or organizationally dispersed people who work across distance, time, and organizational boundaries and are engaged in interdependent tasks by using computer-based technology to facilitate communication and collaboration with a view to accomplishing a common and valued goal by sharing ideas, knowledge, competencies, and information (Townsend et al., 1998; Jarvenpaa and Leidner, 1999; Duarte & Snyder, 2006, Lowry et al., 2006; Watkins, 2013; Ford et al., 2017).

Organizations utilize virtual teams to gather experts who collaborate online to accomplish organizational tasks (Alsharo et al., 2017). A VT can be distinguished from a face-to-face team in terms of several factors. The most prominent factor would be the use of ICTs as the primary communication and collaboration media. Taking into consideration the utilization of ICTs, VT members are less likely to observe physical behaviors (e.g., gestures and intonation), which face-to-face team members rely upon to establish and sustain trust (Alsharo et al., 2017). Besides, VT members could have a limited history of working together, and teams could last for a temporary period until the goal is achieved (Robert et al., 2009; Sarker et al., 2011). However, these factors may also be present for face-to-face teams.

While virtual teams can be confined to a region in a country or the entire country, they can extend beyond national and continental borders when members of VT work and live in different countries (Pinjani and Palvia, 2013). In this regard, global virtual teams (GVTs) are defined as globally dispersed and culturally and functionally diverse teams (DeSanctis & Monge, 1999; Peters & Manz, 2007) that rely on advanced technology for

communication, collaboration and coordination (Hunsaker & Hunsaker, 2008), and that are assembled and disbanded as needed (Christie & Levary, 1998). The term global denotes the cultural diversity of the team members and their global mindset in dealing with the diversity that is associated with globalization (Jarvenpaa & Leidner, 1999). Two main cohesive elements in GVTs were specified by Sarker et al. (2011) as mutual accountability shared by GVT members and interdependent work to solve problems and conduct work.

### *2.1.2 Benefits and Challenges of GVTs*

Virtual teams have various benefits such as task, resource and schedule flexibility, access to and bringing specialized skills and diverse experiences together in a relatively short time, enhanced knowledge sharing and repository, easier documentation of performance outcomes, and opportunities for accelerated problem solving and solution finding (Berry, 2011; Coenen and Kok, 2014; Drescher and Garbers, 2016; Hoch & Kozlowski, 2014; Jimenez et al., 2017; Alsharo et al., 2017; Olaisen & Revang, 2017).

Virtual teams employ experts who have acquired more flexibility in temporal and spatial aspects since they save time by not traveling to meet their teammates (Drescher and Garbers, 2016). These time and cost-saving effects and flexible work schedule benefits are also commonly observed for the teleworkers who work outside of the office by means of virtual communication tools such as teleconferences, videoconferences, and intranets with remote log-in (Coenen and Kok, 2014). The ability to bridge time and space provides the team with the capability to respond and adjust to new tasks more rapidly, and human resources can be distributed more efficiently without physical

relocation of employees thus leading to better utilization of human resources (Kanawattanachai and Yoo, 2002; Berry, 2011). Although flexibility is assumed to generate positive outcomes, it may cause inherent obstacles for virtual teams, one of which is the absence or limited work history shared by VT members, a distinct feature for VTs, as mentioned above. This lack of shared work history among team members as well as less face-to-face interaction could bring about trust issues in virtual teams (McAllister, 1995; Coenen and Kok, 2014).

Accordingly, virtual teamwork is implemented in many international organizations (Cheng et al., 2016). One of the advantages of flexibility in GVTs is easier access to skilled experts all around the world. Bringing a team of people with specialized skills from all around the world decreases or eliminates traveling costs and time (Hoch & Kozlowski, 2014), and ensures availability of resources in other parts of the world when scarcity exists in the organization's or project or functional manager's geographical area. The dispersed structure of GVT members around the globe allows a 24-hour relay workflow (Carmel et al., 2010; Jimenez et al., 2017). For instance, members located in Asia and Australia can work on the project during their business hours. They can pass the work on to their colleagues in Europe and Africa for further processing, and then, they can pass it on to the colleagues in the Americas, who can work on it while their more eastern team members are asleep (Jimenez et al., 2017). This follow-the-sun approach creates a cycle of work through which GVT members pass the work on to the members in Asia and Australia, where 24-hour relay starts again (Carmel et al., 2010).

Despite the unprecedented benefits mostly owing to the developments in ICTs, the virtual nature of these teams is not immune to the challenges to effective collaboration and team outcomes (Alsharo et al., 2017). One of the essential challenges in virtual work is the elimination of face-to-face meetings that would otherwise help team members build interpersonal relationships (Kowalski et al., 2018a; Cummings and Dennis, 2018). Lack of first impressions of other team members might have a substantial impact on the formation and functioning of the team, and the outcome of the teamwork. Cummings and Dennis (2018) contended that virtual team members examine each other's profile on enterprise social networking sites (ESNSs) to get acquainted with them, otherwise not possible in a dispersed team. Some of the problems that GVTs and their members might encounter can be enumerated as lack of trust, language and time barriers, cultural differences (Jarvenpaa et al., 2004), lack of onsite monitoring (Shapiro et al., 2002), lack of tone and body language (e.g., in e-mails, messages, discussion forums) and different interpretations by the members due to the lack of cues (Kowalski et al., 2018a). Besides, lack of collaboration history between members, increased team heterogeneity, transitory nature of the team structure (Harvey et al., 2005), individual characteristics of members, expectations of project leaders and organizations, task interdependence and complexity, and conflict and emotional reaction (Ayoko et al., 2012) can be outlined as other problems. Eventually, if these likely challenges are not addressed by the GVT leaders and upper hierarchical levels in the organization, virtual teams may cause disadvantages to the team members' well-being and job satisfaction, and team performance (Magni et al., 2018).

Team diversity or heterogeneity might have either a positive or negative impact on a team's performance. Although team diversity could exacerbate the conflict and emotional reactions in GVTs (Ayoko et al., 2012), and team members can build higher trust and cohesiveness in homogeneous teams (Drescher and Garbers, 2016), team diversity, on the contrary, could improve GVT effectiveness (Jimenez et al., 2017). Diverse backgrounds of team members could provide representation and exchange of different opinions and perspectives within the team. Hence, this process can create value by providing a more extensive range of information sources and thus aiding creativity and problem solving, and a higher level of organizational learning and synergy (Berry, 2011; Jimenez et al., 2017).

### *2.1.3 Trust and Conflict in GVTs*

Trust and conflict are among the most investigated concepts in virtual team research (Gilson et al., 2015). Trust is an essential element in both organizational and team research, and it has been asserted as a crucial antecedent of organizational and team performance (Benbasat et al., 2008; Ford et al., 2017). In parallel with the emphasis on trust by organizational and business researchers, IS researchers have studied trust in relation to the virtual team effectiveness (Alsharo et al., 2017), its role in the early phase of team formation (Cummings and Dennis, 2018), trust in an online environment (Benbasat et al., 2008), trust development in globally distributed collaboration (Cheng et al., 2016), trust in ad hoc virtual teams (Altschuller & Benbunan, 2013), post-event behavioral controls' effects on individual trust in virtual teams (Dennis et al., 2012), and individual swift trust and knowledge-based trust (Robert et al., 2009).

Trust is a judgment made by individuals about their willingness to be vulnerable to the actions of others (Mayer et al., 1995; Robert et al., 2009). Trust is often the product of knowledge of the person, but research on virtual teams showed that it also could be conferred a priori with little knowledge of the other person (Mayer et al. 1995; McKnight et al. 1998). When trust is low, problems occur, including poor decision making, conflict, and misunderstandings, all leading to poor performance (Haikkinen 2004). Although some trust theorists discussed that trust develops gradually over time, findings of some empirical studies in the 1990s revealed a high level of trust in the early stages of teamwork in contradiction with the expectations (McKnight et al., 1998). In parallel to this paradox, research on VTs demonstrated that trust could be conferred a priori despite the lack of knowledge about the other members in the team (Mayer et al. 1995; McKnight et al. 1998). Initial trust formation plays a notable role in new organizational relationships (McKnight et al., 1998). Trust helps team members to resolve conflicts in the stages of team development, in particular in the formation stage to help to reduce social ambiguity (Pelegrini Morita and Marie Burns, 2014; Cummings and Dennis, 2018). In parallel with this, a member's trusting beliefs can have a direct positive effect on her/his trust in the team and perceptions of team cohesiveness (Jarvenpaa et al., 2004). In this regard, trust can be viewed in two main categories, which are knowledge-based trust developed through interactions, and swift trust developed prior to interaction (Robert et al., 2009).

As opposed to physical teams in which face-to-face communication plays an important role, virtual teams rely on trust due to the substitution of authority with self-direction and self-control (Robert et al., 2009). Trust has a notable role in various factors



such as performance, intra- and inter-organizational cooperation, coordination and control, justification of decisions, and information exchange and share, and success of collaboration (Robert et al. 2009). Trust has been placed in a key position in IT-enabled relationships (Jarvenpaa et al., 2004). Although trust in virtual teams plays an important role in team performance (Iacono and Weisband, 1997), some studies posited that trust does not have a significant direct effect on team effectiveness and success. In contrast, it positively influences VT collaboration (Alsharo et al., 2017). Antecedents of dyadic trust in GVTs are explicated as other team members' (trustees') perceived ability, integrity, benevolence, and the members' (trustors') own propensity to trust which is also influenced by trustor's cultural, social, developmental experiences, and personality type (Jarvenpaa et al., 1998; Jarvenpaa & Leidner, 1999; Sarker et al., 2011).

In the early phases, a global virtual team's trust is predicted more strongly by team members' perceptions of the other members' integrity and ability. Over time, team members' perceptions of others' benevolence will have a stronger effect on team trust (Jarvenpaa et al., 1998). The level of participation in the team-building exercises will be positively associated with team trust as well as with other team members' perceived ability, integrity, and benevolence. Traditional control mechanisms imported from a face-to-face communication environment are less effective in an ICT-mediated communication environment; thus, control based on authority is often yielded to self-direction and self-control, which relies heavily on trust (Robert et al., 2009).

Organizations encourage and implement teamwork in order to ensure effectiveness, productivity, and profitability eventually. However, conflict is a salient

challenge that is the process resulting from the tension between team members (De Dreu and Weingart, 2003). Conflict is defined as disagreement, both manifest and latent, among team members, and implies incompatible goals or interests (Robbins, 1974; Kankanhalli et al., 2006). Conflict may originate due to real or perceived differences. Conflict is categorized in a broader sense as relationship-related and task-related in the extant literature (Kankanhalli et al., 2006). Relationship conflict, which is also named as the affective conflict is related to personal issues such as personal taste and clashes, mutual dislike, annoyance among team members, political preferences, values, and interpersonal style (De Dreu and Weingart, 2003; Kankanhalli et al., 2006). Task conflict results from differences in viewpoints of team members with regard to the team tasks, and it is related to the issues about the distribution of duties and resources, procedures and policies, and judgments and interpretation of facts (De Dreu and Weingart, 2003; Kankanhalli et al., 2006). Some studies have posited and found that although relationship conflict might hurt team effectiveness and performance, moderate level of task conflict, through enhanced understanding of various viewpoints and creative options, can be beneficial to team effectiveness and can improve organizational performance and growth (Jehn, 1997; De Dreu and Weingart, 2003).

One challenge in virtual work is the elimination of face-to-face meetings that typically help team members build interpersonal relationships and form impressions of others (Cummings and Dennis, 2018). Interpersonal conflict in the workplace was defined by Spector and Jex (1998) as one of the job stressors besides organizational constraints, which involves disagreements ranging from minor ones between coworkers

to physical assaults on others (p.358). Although interpersonal conflict is considered to be a mutually stressful interaction rather than experienced outcome (Hershcovis, 2011), it has been conceptualized in the literature to include overt (e.g., being rude to a coworker) or covert (e.g., spreading rumors about a coworker) mistreatments which overlap with workplace bullying (Spector and Jex, 1998).

#### *2.1.4 Communication Medium Characteristics in GVTs*

A GVT can be distinguished from a face-to-face team through several factors. The most prominent factor is the use of ICTs as primary communication media to collaborate and achieve a shared objective (Magni et al., 2018). ICTs utilized for communication and collaboration by virtual teams include such as text messages, e-mails, social media (Facebook and FB groups, Instagram, LinkedIn, etc.), messaging and VoIP services (WhatsApp, Skype, Google Hangout, Viber, etc.), Google docs, online calendar tools (Doodle), cloud drivers (Dropbox, Google Drive, Box, etc.), discussion forums, Enterprise Social Media (ESM), and project management software programs (e.g., Asana, MS Project, Basecamp). Technology-mediated collaboration vis-à-vis face-to-face collaboration can have either negative or positive effects. Technology-mediated collaboration may create more considerable lags in information exchange, a greater need to repair misunderstandings, a reduction in information seeking attempts, more incoherent messages, and diminished team-wide participation (Andres, 2012). On the contrary, VTs can be better suited to overcome the challenges associated with increased team size than their face-to-face counterparts (Lowry et al., 2006).

### *2.1.5 Developmental Stages of Teams and GVTs*

It has been an area of interest for decades for researchers to study the path a group takes over its lifespan toward the accomplishment of its main tasks in order to determine the stages in group development and propose models for the fulfillment of group effectiveness and performance (Gersick, 1988). Group development research followed two main streams, one dealing with group dynamics, and the other dealing with phases in group problem solving or decision development (Gersick, 1988).

Fifty articles dealing with stages of group development based on group dynamics were synthesized by Tuckman in 1965 in his paper investigating the developmental sequence in small groups. His study included therapy-group studies, T-group (human relations training group) studies, and natural- and laboratory-group studies, and he had a model of group development consisting of four stages named as forming, storming, norming and performing. Tuckman and Jensen (1977) added the fifth stage as adjourning. Hare's (1976) sequences included defining the situation, developing new skills, developing appropriate roles, and carrying out the work. LaCoursiere's group developmental stage theory (1980) consisted of five stages, which are orientation, dissatisfaction, resolution, production, and termination. McGrath's (1984) stages included (1) generating plans, ideas, and goals, (2) choosing or agreeing on alternatives, goals, and policies, (3) resolving conflicts and developing norms, and (4) performing action tasks and maintaining cohesion.

Ayoko et al. (2012) used Tuckman's model to investigate the management of conflict and emotions for performance in GVTs. They examined the teams in relation to

the conflicts which emerge, develop, and are managed through four stages of Tuckman's model.

The second stream of group development research focused on group problem solving or decision development and usually worked with groups in a laboratory environment (Gersick, 1988). These groups were established to perform a limited task of solving a specific problem, and their lifespan could be measured with minutes or hours. Fisher (1970) proposed a four-phase group decision making composed of orientation, conflict, emergence, and reinforcement. However, he also indicated that not all of these phases would not necessarily be present in all task-oriented small groups. Bales and Strodtbeck's (1951) unitary sequence model consisted of three phases, namely orientation, evaluation, and control.

Both research streams usually proposed sequential processes in group developments, and models followed a linear model in which the progression is in a forward direction where groups should visit each stage before proceeding with the next stage (Gersick, 1988). On the contrary, some researchers, such as Scheidel and Crowell (1964), proposed iterative models. Their model was a spiraling model for group problem solving instead of a typical linear development illustration.

On the contrary to the past research that focused on interpersonal issues or problem-solving activities, Gersick (1988) dealt with in-group's attention to outside resources and requirements. Gersick's (1988) study on naturally-occurring teams, which corresponded with project teams, found that not all teams progress gradually through a universal series of stages, as it was suggested by Tuckman and others' traditional group

development models. It was not possible to predict a gradual and deterministic course of progress. He didn't come up with a stage theory as he stated that stage connotes hierarchical progress from one step to another. Instead, Gersick (1988) stated a pattern of "punctuated equilibrium," a term which was used in the field of natural history. According to Gersick (1988), "in this paradigm, systems progress through an alternation of stasis and sudden appearance-long periods of inertia, punctuated by concentrated, revolutionary periods of quantum change" (p.16). Gersick's proposed model had two phases. The first phase corresponded with the first half of the groups' calendar time that is the initial period of inertial movement. The second phase overlapped with the second period of inertial movement that starts at the midpoint of calendar time when groups undergo a transition. In conclusion, group lifecycles followed a process composed of the first meeting, phase 1, transition, phase 2, and completion.

Different from Gersick's punctuated equilibrium model with specific deadlines in the groups, Waller et al. (2002) examined the model with changing deadlines. They found that groups working under changed deadlines increase their attention to time as deadlines approach instead of a sharply increasing attention at the midpoint. At the same time, they engaged in task transitions at or near the midpoint of the allotted time.

Some VT research utilized group development models. Based on a study on virtual learning teams, Johnson et al. (2002) concluded that Tuckman's group development model described virtual team performance better than other theoretical models except for the storming stage due to the student teams' limited time in accomplishing assignments. Since teams skipped the storming stage, they proposed an

iterative model with forming, norming, and performing stages. When conflict among team members arose, teams would resolve the conflict and continue the process of forming, norming, and performing.

Sarker and Sahay (2003) developed a GVT development model based on a qualitative study of 12 student teams. This model comprised four stages, which are initiation, exploration, collaboration, and culmination. They referred to Gersick's (1988) model by emphasizing the overlapping points such as Gersick's critique of gradual and linear development without any iterative process through which all groups follow the same historical path, and lack of mechanisms of change and the role of a group's environment. However, Sarker and Sahay (2003) examined an inductively grounded interpretive case study and developed a model based on their empirical observations. With the interaction of macro level, micro level and modalities in each stage, teams followed four phases, not in a linear sequence all the time. After the initiation phase which took generally maximum two weeks for the student teams, each team moved on the exploration phase where some of them spent a more than half of the project time (14 weeks) and some of them skipped this phase passing directly to the last phase of culmination and dissolution. Some of the teams reverted to the exploration phase from the collaboration phase since they couldn't deal with trouble effectively.

## **2.2 Bullying and Cyberbullying**

### *2.2.1 Bullying in General*

Bullying has been widely investigated for school children and adolescents (Whitney and Smith, 1993; Rivers & Smith, 1994; Kowalski et al., 2014; Baldry et al., 2015). Empirical research on school bullying is as early as the 1970's with Olweus' 1978 study (*Aggression in the schools: Bullies and whipping boys*) as the starting point (Hymel and Swearer, 2015).

Bullying of children was considered an intentional behavior by a school child or adolescent or a group of school children to cause harm or distress on another child, adolescent or a group of them not only one time but repeatedly in a systematic manner over time (Olweus, 1994; Kowalski et al., 2018a). In the very worst scenario, many school shooting cases were reported to have bullying involved as a major player (Li, 2006). Bullying consists of an imbalance of actual or perceived power between the perpetrator and victim, where victim cannot defend her/himself against the perpetrator (Slonje et al., 2013). This systematic abuse of power brings about negative psychological consequences for the victim in the short and long terms (Ybarra et al., 2007; Patchin & Hinduja, 2006; Erdur-Baker & Tanrikulu, 2010; Tokunaga, 2010; Baldry et al., 2015) and eventually may result in dramatic events such as suicide (Hazelwood & Koon-Magnin, 2013).

Bullying and aggression in general were considered to be direct against the victims in 1980s, and they were enacted directly toward the victim where victim is totally aware of the aggressor. Human aggression is defined as “any behavior directed toward



another individual (target) that is carried out with the proximate (immediate) intent to cause harm at the target” while violence is defined as “aggression that has extreme harm as its goal (e.g., death) (Anderson and Bushman, 2002, p.28-29). As is evident in this human aggression definition, bullying is conceptualized to be identical to the aggression. However, bullying was often considered to be a subset of aggression, and bullying was generally defined to include imbalance of power whereas aggression may be directed to a person with same power or regardless of any consideration of imbalance (Smith et al., 2012). Direct aggression includes physical aggression (e.g., hitting, kicking and punching someone or something, and taking or damaging belongings), verbal aggression (e.g., teasing, taunting, threatening), or social exclusion (e.g., telling someone directly that they cannot join their group, games or activities) (Björkqvist et al, 1992; Olweus, 1993; Slonje and Smith, 2008; Dooley et al., 2009). Later, during the 1990s, scope of bullying expanded to include the investigation of indirect and relational types of bullying and aggression (Björkqvist et al., 1992; Crick and Grotpeter, 1995). Indirect aggression, on the contrary, doesn’t target the victim directly, but is targeted via a third party (e.g., spreading nasty stories, or social aggression or social exclusion such as telling others not to play with someone). Therefore, identification of the aggressor may be not possible or almost impossible (Dooley et al., 2009). Relational aggression which can be either a type of indirect or direct aggression can be defined as attempts or threats done to damage someone’s peer relationships (Underwood, 2003; Slonje and Smith, 2008; Dooley et al., 2009). These differentiations for aggression in general are also applicable to other types of aggression including the bullying (Einarsen et al., 2011; Smith et al., 2012). Another

differentiation for bullying includes passive and active besides direct and indirect (Baron and Neumann, 1996). Active or overt aggression produces harm through the performance of some behaviors while passive or covert aggression delivers damage through the withholding of some action. Baron and Neumann (1996) found that most aggression occurring in work settings is covert forms of aggression (verbal, indirect, and passive) rather than overt forms (physical, direct, and active). In bullying literature, measures have consisted both active and passive forms.

### *2.2.2 Workplace Bullying*

While bullying among school children and adolescents have been investigated commonly in the literature, bullying that occurs in the workplace also has attracted attention increasingly since 1990s. There have been also studies which attempted to understand the link between school bullying and workplace bullying whether being a bully or victim at school years might have an impact for continuity in the adulthood and in the workplace (Smith, 1997; Smith et al., 2003). Smith et al. (2003) found a significant relationship between school experiences and workplace bullying in their study survey 5,288 adults from various workplace venues.

The first study regarding the workplace harassment (generally used interchangeably with bullying) belongs to Brodsky (1976) who was an anthropologist and psychiatrist. In his seminal book, *Harassed Worker*, Brodsky examined over a thousand cases which were filed in California and Nevada for Worker's Compensation by workers who stated that they were ill and injured or unable to work because of ill-treatment by employers, coworkers, or consumers, or because of excessive demands for work output.

He divided work harassment into five acts which were specified as name calling, scapegoating, physical abuse, work pressure and sexual harassment. His definition for harassment behavior involved “repeated and persistent attempts by one person to torment, wear down, frustrate, or get a reaction from another”, and he supplemented the definition with elaborating on the behavior as “treatment which persistently provokes, pressures, frightens, intimidates or otherwise discomforts another person” (Brodsky, 1976, p.2). He also highlighted the characteristics of harassment behavior as overt, persistent (continuing for a week or many years), repetition (not necessarily by one person, but from several people exhibiting same harassment behaviors), recognition of harassed person’s weakness by the harasser, its application by some organizations as a culture of discipline (e.g., army). Brodsky examined workplace harassment directed from different people including superiors, peers, consumers (e.g., different passengers harassing the bus driver) and friends, and also from the system in the forms of institutionalization and culture of harassment. Although workplace harassment or bullying had been examined by Brodsky as early as 1976, he conducted studies about mostly psychological consequences of workplace stress and misbehaviors, and also it was not investigated by other researchers until 1990 when Scandinavian researchers started to be interested in it. In parallel with the countries of origin for school bullying, initial studies included mostly Scandinavian countries (Sweden, Leymann, 1990, 1996; Norway, Einarsen et al., 1994, Einarsen & Skogstad 1996; Finland, Björkqvist et al., 1994). Some of Scandinavian-based research used the term “mobbing” (*mobbning* as Einarsen and Leymann used) instead of bullying and harassment in order to describe persistent exposure to

interpersonal aggression and mistreatment from colleagues, superiors or subordinates (Leymann, 1996; Baruch, 2005). Leymann (1990, 1996) referred mobbing as psychological terror in working life, which involves hostile and unethical communication towards coworkers for humiliating, intimidating, frightening or punishing the target. In essence, both bullying and mobbing referred to the same phenomenon and their use mostly depended on the locations where workplace bullying research was conducted, and on the language which scholar papers were written in (Baruch, 2005). Olweus also used "*skolmobbing*" for school bullying in his 1978 article.

Workplace bullying is both an influential antecedent for the creation of a hostile and toxic work environment and a consequence of an existing toxic environment which has been ignored by organization executives and policies. Both public and private organizations suffer from this hostile and toxic work environment where insulting or offensive remarks, persistent criticism, personal or even physical abuse and threats prevail (Einarsen, 2000). A professional in a workplace can be pushed into a helpless and defenseless position as a result of bullying activities toward her/him (Leymann, 1990, 1996; Einarsen, 1999, 2000). Workplace bullying was usually investigated from two perspectives, stress (Einarsen, Leymann, Björkqvist) and conflict (Zapf and Gross, 2001). It has been generally defined from the victim's perspective and relied on self-reports of victims mostly (Bowling and Beehr, 2006; Kowalski et al., 2018a). Workplace bullying was built upon the similar features of bullying at school and among children. As is in school bullying among children and adolescents, workplace bullying consists of subtle (indirect) and obvious (direct, overt) negative behaviors (D'Cruz and Noronha, 2013).

Covert behaviors are acts that are subtle in nature such as rude looks and ignoring someone, whereas overt behaviors are less subtle and more observable acts to others such as yelling (Hershcovis, 2011). In general, bullying occurs if a coworker is harassed, offended, socially excluded, or carries out humiliating tasks and if the person concerned is in an inferior position (Zapf and Gross, 2001; D'Cruz and Noronha, 2013). Subordinate position can result from the actual or perceived power imbalance. However, many studies revealed through their empirical studies that victims, on the contrary, may be in a superior position such as a supervisor or manager who is bullied by their employees (Björkqvist et al., 1994; Hoel et al., 2001; D'Cruz and Noronha, 2013). In a same vein, workplace bullying constituted the same features with school and children/adolescent bullying which are repetition, intention, and power imbalance being the determinant characteristics. Leymann (1996) and Einarsen (1999) argued that systematic application of acts of workplace bullying is a prerequisite of bullying while Rayner (1997) asserted that sporadic cases can also constitute workplace bullying regardless of systematic application.

In general, under a broad context of workplace mistreatment, extant literature utilized various constructs from the perspective of victim (target) including bullying, incivility, social undermining, mobbing, workplace aggression, emotional abuse, victimization, interpersonal conflict, and abusive supervision (Hershcovis, 2011). These constructs have been used either interchangeably or to conceptualize another concept which possesses slight or significant differences from bullying (Hershcovis, 2001; D'Cruz and Noronha, 2013). In this regard, some studies expressed a clear distinction for the

concept they used. For instance, Björkqvist et al. (1994) mentioned harassment as a specific type of aggression directed toward one individual or group of people with varying duration and intensity, and they differentiated bullying as a less intense but long-lasting harassment in schools or in the army. From the perspective of perpetrator (actor), anti-social behavior, counterproductive work behaviors, interpersonal deviance, retaliation, revenge, and workplace aggression were other constructs used (Hershcovis, 2011). As far as five workplace mistreatment constructs (bullying, incivility, social undermining, interpersonal conflict and abusive supervision) are concerned, Hershcovis (2011) identified five overlapping and differentiating characteristics as moderators which can be summarized as intensity, frequency (and persistence), perpetrator power/position, outcomes to be affected, and intent (Table 1). She also discussed another feature which is perceived invisibility, that is the victim’s perception about whether third parties are aware of the victims’ experiences of aggression (p.512).

Table 1. Characteristics of Five Types of Workplace Mistreatment (Retrieved and Compiled from Hershcovis (2011))

<b>Characteristics</b>	<b>Mistreatment Types</b>
<b>Perceived intensity:</b> Severity or harmfulness the victim attributes to the aggressive behavior	<b>Bullying:</b> High <b>Incivility:</b> Low (However, some outcomes of incivility might be more severe than bullying.) <b>Interpersonal conflict:</b> Ranges in severity. <b>Abusive supervision:</b> Ranges in severity.
<b>Frequency and persistence:</b> Behavior occurs several times per a time unit (week, month, etc.) and has a sustained nature over time.	<b>Bullying:</b> Frequent and persistent • Not specified for incivility, social undermining, interpersonal conflict, and abusive supervision.
<b>Perpetrator power / position:</b> Power imbalance in favor of perpetrator, and perpetrator’s position inside or outside the organization.	<b>Bullying:</b> Insider with power (power imbalance), may also be an outsider. <b>Incivility:</b> Insider <b>Social undermining:</b> Insider

<ul style="list-style-type: none"> <li>• Insiders include coworkers, supervisors, or subordinates.</li> <li>• Outsiders include customers.</li> </ul>	<p><b>Interpersonal conflict:</b> Insider or outsider</p> <p><b>Abusive supervision:</b> Superior with formal power</p>
<p><b>Outcomes:</b> Attitudes, behaviors, career success, victim reputation, victim well-being, victim interpersonal relationships, performance, other strains, etc.</p>	<ul style="list-style-type: none"> <li>• Hershcovis (2011) found similar outcomes for all of the mistreatment types. Consequences only for social undermining were specified.</li> </ul> <p><b>Social undermining:</b> Hinder success, personal relationships, and success</p>
<p><b>Perceived intent:</b> Victim's perception about the perpetrator's intention to cause harm.</p>	<p><b>Bullying:</b> Intentional</p> <p><b>Incivility:</b> Ambiguous</p> <p><b>Social undermining:</b> Intentional</p> <p><b>Interpersonal conflict:</b> Not necessary</p> <p><b>Abusive supervision:</b> Not required</p>

Based on the arguments above and in Table 1, a more straightforward differentiation can be made for incivility, bullying and abusive supervision, that is, incivility is low in intensity with ambiguous intention, bullying is much more intense and repeated with a higher level of intention against the target, and abusive supervision is the downward incivility or bullying in case of a hierarchical relationship (Hershcovis, 2011; Hughes and Durand, 2013). However, as discussed above, concepts involved in workplace mistreatment have a wide range of variety which leads to a confusion with a myriad of overlaps.

Development of workplace bullying was also examined in terms of stages through which conflicts are escalated to more severe aggression between coworkers. According to Leymann (1996), workplace bullying can follow a process composed of four stages which were identified as original critical incident, mobbing and stigmatizing, personnel administration, and expulsion (Leymann, 1990). Triggering situation such as envy is often a conflict usually related to the work. This phase lasts for a short time and stigmatizing for the victim by coworkers starts following the triggering situation. In this

second stage, victim is subject to various insults, humiliations, and verbal and physical abuses. Victim's reputation is tarnished with rumors and slanders, and isolated socially. S/he cannot perform her/his tasks effectively or may be assigned to irrelevant works. In the worst case, s/he may be exposed to violence or receive threats of violence. At this point, quite to opposite to an expectation of justice in favor of the victim, management's approach to the bullying case would usually be to treat the victim as the source of the conflict and problems. This unfair treatment could result from the assumption that prejudices against the victim is valid due to the victim's low power to defend her/himself and the realized negative consequences that affect her/his job performance. This could lead to unfair inferences about the victim. As a result of preceding three stages, the victim could be exposed to further stigmatization which can lead to and accelerate victim's alienation accompanied by situations such as long-term sick leave, relocation to degrading works, or relocation to a unit where s/he has no tasks to carry out. Ultimately, severe psychological problems could emerge that requires advanced psychiatric treatment (Leymann, 1990, 1996).

Another conflict escalation model was developed by Glasl (1994), and it was explicated by Zapf and Gross (2001) and Einarsen et al. (2011) in English language. This model didn't specify bullying explicitly, though it started with a rational conflict (e.g., task-related) as the first phase, then original conflict escalated to an interpersonal conflict, and finally aggression and destruction were reached (Zapf and Gross, 2001). According to Glasl, the likelihood to reach the third phase in an organization is very low. Zapf and Gross (2001) argued that bullying occurs between the second and third phases in terms of



severity whereas Einarsen et al. (2011) contended that last phase is reached in more extreme cases of bullying, which may result in considering or committing suicide. Although these models may help organizations intervene in the conflicts in their early phases or when they escalate and become bullying cases, not all the cases might follow a linear sequence as proposed (Zapf and Gross, 2001). Nevertheless, attempting to determine the source of bullying cases and developing strategies to prevent them from escalating to cases with severe outcomes for victims and organizations, these phases can be used as benchmarks.

As one of the measures commonly used for workplace bullying in the literature, and also as a basis for some cyberbullying measures (e.g., Privitera and Campbell, 2009; Farley et al., 2016; Jönsson et al., 2017), Einarsen et al. (2009) distinguished among three types of workplace bullying which are work-related, person-related and physically intimidating bullying (Table 2). Person-related bullying consists of behaviors such as making insulting remarks, excessive teasing, spreading gossip or rumors, persistent criticism, intimidation and threats. Task-related bullying includes behaviors such as giving unreasonable deadlines or unmanageable workloads, excessive monitoring of work, or assigning meaningless tasks or even no tasks (Einarsen et al., 2009).

Table 2. Types of Workplace Bullying according to NAQ-R (Negative Acts Questionnaire – Revised) Measures (Einarsen et al., 2009)

**1. Work-related bullying**

- Someone withholding information which affects your performance
- Being ordered to do work below your level of competence
- Having your opinions ignored
- Being given tasks with unreasonable deadlines

<ul style="list-style-type: none"> <li>- Excessive monitoring of your work</li> <li>- Pressure not to claim something to which by right you are entitled (e.g. sick leave, holiday entitlement, travel expenses)</li> <li>- Being exposed to an unmanageable workload</li> </ul>
<p><b>2. Person-related bullying</b></p> <ul style="list-style-type: none"> <li>- Being humiliated or ridiculed in connection with your work</li> <li>- Having key areas of responsibility removed or replaced with more trivial or unpleasant tasks</li> <li>- Spreading of gossip and rumors about you</li> <li>- Being ignored or excluded</li> <li>- Having insulting or offensive remarks made about your person, attitudes or your private life</li> <li>- Hints or signals from others that you should quit your job</li> <li>- Repeated reminders of your errors or mistakes</li> <li>- Being ignored or facing a hostile reaction when you approach</li> <li>- Persistent criticism of your errors or mistakes</li> <li>- Practical jokes carried out by people you don't get along with</li> <li>- Having allegations made against you</li> <li>- Being the subject of excessive teasing and sarcasm</li> </ul>
<p><b>3. Physically intimidating bullying</b></p> <ul style="list-style-type: none"> <li>- Being shouted at or being the target of spontaneous anger</li> <li>- Intimidating behaviors such as finger-pointing, invasion of personal space, shoving, blocking your way</li> <li>- Threats of violence or physical abuse or actual abuse</li> </ul>

### 2.2.3 Characteristics of Workplace Bullying

Primary characteristics of workplace bullying can be outlined as systematic repetition of negative acts over time, imbalance of power between the perpetrator and the target, and intention by the perpetrator to harm the target.

While most of the definitions for workplace bullying indicate repetition of negative acts towards coworkers, some of the studies highlight the frequency and duration besides repetition. Workplace bullying possesses a systematic, frequent and repeated nature of aggressive and hostile acts and behaviors toward victims over a period of time (Leymann, 1990, 1996; Björkqvist et al., 1994; Privitera and Campbell, 2009;

D'Cruz and Noronha, 2013). For instance, Leymann (1990, 1996) suggested that such negative social behaviors should occur at least once a week to call it bullying, which also characterizes bullying as a severe form of social stressor. However, it is not always possible to measure weekly repetitions in case of some bullying behaviors which are not episodic such as rumors since they are conveyed once and spread among other coworkers over time (Einarsen et al., 2011). Target and perpetrator are generally in the same place (in the workplace, business unit, meeting, project team, etc.) everyday which reinforces repeated and prolonged contact (Baron and Neumann, 1996; Keashley et al., 2012). Overall duration of the bullying may vary from six months to a couple of years (Einarsen et al., 2011). Prevalence rates also vary based on the region where research was conducted. Research in Scandinavian countries has reported workplace bullying prevalence rates from 3.5% to 16% (Einarsen and Skogstad, 1996; Einarsen, 2000; Mikkelsen and Einarsen, 2001).

There is an initial or developing (over the course of bullying relationship) imbalance of perceived or actual physical and/or social power between the perpetrator and the victim where perpetrator is more powerful (Björkqvist et al., 1994; Baruch, 2005; Privitera and Campbell, 2009; Keashley et al., 2012). In a bullying relationship, it is possible to start with an equal power structure for both parties, though it would deteriorate against the victim over time and limit the resources and inability of the victim to defend her/himself (Einarsen, 2000; Zapf and Gross, 2001; D'Cruz and Noronha, 2013). This deterioration could occur if the victim lacks skills to manage an escalating conflict or if s/he gets into an outsider position or stigmatized and loses the support of

other colleagues and supervisors. Bullying can be described as an escalated process in the course of which the target ends up in an inferior position by being subject to systematic negative social acts (Einarsen et al., 2011). This imbalance can consist of abuse of power in case of supervisor bullying against the inferior coworkers (Slonje and Smith, 2008).

Although necessity of the intention by the perpetrator to harm the victim was specified by many researchers (Tokunaga, 2000), the alleged bully may not always be aware of the consequences of their negative acts against the victim (Forsell, 2016). Thus, intention to harm can be deliberate or unconscious (Baruch, 2005).

Whereas number of bullied individuals is not necessarily to be one person, but several individuals or a group of coworkers, more frequently, perpetrators can bully in groups of two or more (Rayner, 1997). Bullying may also enable the probability of retaliation (Baron and Neumann, 1996) and spreading of bad behaviors and creating a hostile work environment (Keashley et al., 2012).

#### *2.2.4 Cyberbullying and Workplace Cyberbullying*

As is in the bullying literature, most of the cyberbullying research have concentrated on children and adolescents who are generally middle and high school students (e.g., Li, 2006; Williams and Guerra., 2007; Kowalski & Limber, 2007; Erdur-Baker & Tanrikulu, 2010; Patchin & Hinduja, 2015; Wright, 2018; Olweus & Limber, 2018) and to a less extent on young adults (e.g. undergraduate students, Finn, 2004; Brack & Caltabiano, 2014; Balakrishnan, 2015) (meta-analyses by Tokunaga, 2010 and Kowalski et al., 2014; Baldry et al., 2015). Prevalence rates of cyberbullying as opposed to bullying at schools were reported to be lower. For instance, half of junior high school

students were subject to face-to-face bullying whereas about one in four had been cyberbullied (Li, 2006). As a matter of fact, cyberbullying was not an issue until the new millennium before the proliferation of the ICTs and the Internet toward the end of 1990s, and due to the restricted use of the Internet and absence of cell phones and smart phones, respectively.

Cyberbullying, regardless of place it occurs and victims targeted by offenders, includes any behaviors that repeatedly and intentionally communicates hostile, aggressive, offensive or rude messages intended to inflict harm or discomfort to an individual or a group of individuals who cannot easily defend themselves by posting unpleasant and offensive information (picture, videos, or text) about them through digital media such as text and instant messages, emails, blogs, and social media (Tokunaga, 2010; Kowalski et al., 2014; Forssell, 2016). Besides cyberbullying among the children and adolescents, cyberbullying occurring in the workplace by targeting coworkers started to attract attention increasingly in the second half of millennium's first decade, though later than those which examined cyberbullying among children or at schools (e.g., Baruch, 2005; Privitera & Campbell, 2009; Piotrowski, 2012; D'Cruz and Noronha, 2013; Ford, 2013; Cassidy et al., 2014; Farley et al., 2016; Coyne et al., 2017; D'Cruz and Noronha, 2018; D'Souza et al., 2018). Although the negative acts were often referred as workplace cyberbullying, they were also named as bullying on the net (Baruch, 2005), virtual harassment (Ford, 2013), online sexual activities at the office (Cooper et al., 2006), and bullying through digital devices in working life (Jönsson et al., 2017).

Workplace cyberbullying was defined by Farley et al. (2016) and Forssell (2018) as “a situation where over time, an individual is repeatedly subjected to perceived negative acts conducted through technology (e.g., phone, email, web sites, and social media) which are related to their work context, and where this individual as a target of workplace cyberbullying has difficulty to defend her/himself against these actions.” Similar to many traditional workplace bullying definitions, intent to harm was not included in their definition since conveyance of communication cues in a rich context may not always be possible in computer-mediated communication (Daft et al., 1987) and it is challenging to operationalize intention in workplace bullying due to the complexities in establishing a perpetrator’s real intentions (Einarsen et al., 2011).

In the broadest context, cyberbullying involves negative acts carried out by a group or an individual using digital media (Slonje and Smith, 2008; Tokunaga, 2010; Forssell, 2016). Initial studies with regard to cyberbullying assessed it as an extension of traditional face-to-face bullying that is the bullying via electronic communication tools (Li, 2006; Forssell, 2016). These negative acts are committed through a wide variety of digital media that are connected to the Internet (Slonje and Smith, 2008). Some studies investigated only one ICT as the means of performing aggressive behavior. For instance, adult and workplace cyberbullying by means of e-mails were studied by Baruch (2005), Lim and Teo (2009), and Ford (2013). However, highlighting only digital media as a distinct feature of cyberbullying would underemphasize the increasing role and threats resulting from it. Recent studies distinguished unique characteristics of cyberbullying, which separates it from traditional bullying (Kowalski et al., 2012; Forssell, 2016;

Kowalski et al., 2018a). These features can be indicated as the permanence of the offensive information posted and the difficulty of getting away from victimization due to this information (Slonje and Smith, 2008), the breadth of a potential audience which spans across the world and is not confined to a limited number of people or groups such as classmates, coworkers and a small community (Hazelwood & Koon-Magnin, 2013, Forssell, 2016), the anonymity that can effectively disguise the perpetrators (Hazelwood & Koon-Magnin, 2013, Forssell, 2016) and online disinhibition effect (Suler, 2004; Lowry et al., 2016).

Unlike traditional and face-to-face bullying, the target may not avoid or get rid of the exposure to and negative consequences of cyberbullying after school or work hours (Patchin & Hinduja, 2006; Slonje & Smith, 2008; Tokunaga, 2010). While it is possible for the target to get away from the face-to-face bullying until the next business day or school day, the target of a cyberbullying behavior may continue to receive text messages and e-mails or to see anonymous social media posts all of which contain inappropriate content about the target or her/his family members or friends. The inappropriate content that is posted on a social networking site, blog, discussion forum, or website to which many people can access easily would stay there for an infinite period or for a while until moderators of social networking sites or other websites take action to remove the content. The content in electronic media is continuously produced and modified by many users, especially on social networking websites such as Twitter, Instagram, and Facebook (Kaplan & Haenlein, 2010). Regulating deviant behaviors on the Internet might be challenging for website admins and regulatory authorities (Tokunaga, 2010). This causes

different levels of supervision, mostly inadequate. Even though the content is removed in a short time, it can be spread easily by any person when it is copied or downloaded from the original source and pasted or uploaded to other platforms. Therefore, homes or anywhere far from school or work could not remain as safe havens for the targets of cyberbullying. The content of negative acts (text, picture, video, etc.) would be permanent online, and the victim would feel her/himself defenseless to remove the material easily.

In connection with the permanence, negative acts can reach to an unprecedented amount of people in a peer-group, community, state, country, and even other countries across the world. A large audience who access the Internet can view the content of the negative act and save it to their own computers and smart devices (Slonje and Smith, 2008). Hence, it becomes a public form of bullying.

As in traditional bullying, intent to harm is another feature (Baruch, 2005). Unlike face-to-face bullying, the target may not recognize the perpetrator(s) unless they identify themselves or their IPs can be traced back (Hazelwood & Koon-Magnin, 2013; Forssell, 2016). This provides the perpetrator with the comfort of some degree of invisibility and anonymity. Perpetrators can hide their true identity deliberately by creating temporary and fake accounts or using pseudonyms.

Interaction in online platforms may give people a feeling of irresponsibility due to the lack of spatial dimension (Kowalski et al., 2012). Thus, the cyberbully may be less aware or unaware at all about the consequences of her/his negative online actions against the target since s/he is not able to see the physical (facial expressions, intonations, and



gestures) responses and reactions of the target, s/he does not receive direct feedback from the target, and target may be geographically far away from the perpetrator (Forssell, 2016). Lack of direct feedback may lead to fewer opportunities for empathy or remorse for the perpetrator, and less interest and opportunity to interfere in the cyberbullying act for the bystander (Slonje & Smith, 2008).

### *2.2.5 Sexual Harassment and Cyber Sexual Harassment at the Workplace*

Harassment by referring to sexual harassment was indicated as a more severe form of bullying in cyberspace (Li, 2006). Sexual harassment at the workplace was also examined as a specific form of workplace harassment that utilizes sexuality as a means of oppression (Björkqvist et al., 1994). Henry and Powell (2015, p. 759) defined “technology-facilitated sexual violence and harassment as the criminal, civil, and otherwise harmful sexually aggressive behaviors perpetrated against women with the aid or use of new technologies.” Brody and Vangelisti (2017) examined Facebook to analyze sex differences in the perpetration of cyberbullying. They found that women were more likely than men to be targeted by topics relating to sexual activity. Feminist scholars like Messerschmidt (1993) had pioneered by asserting that the workplace is a site of gendered control and authority. Apart from the gendered segregation and treatment in the workplace, sexual harassment has been commonly investigated by scholars (Lapierre et al., 2005; Morganson & Brown, 2018).

Besides cyberbullying, cyber harassment, aggression, and incivility, women may be subject to more and novel forms of sexual harassment, taking into consideration the unique characteristics of online platforms and communication through them (Ritter,

2014; Halder and Jaishankar, 2011). For instance, negative behaviors targeting women online can differ from physical (face-to-face) gender harassment (as the most common type of sexual harassment) and can include e-mail harassment (obscene e-mails), cyber sexual defamation, hacking, morphing (derogatory texts which may carry obscene doctored pictures of the victim), e-mail spoofing (where the origin is misrepresented), cyber pornography, cyber flirting as well as name-calling, anonymous group attacks, and posting personal information of the victim to invite more harassment (Citron, 2009; Ritter, 2014; Halder and Jaishankar, 2011).

Measures for sexual harassment were also developed. Fitzgerald et al. (1995) categorized sexual harassment as being composed of gender harassment (5 items), unwanted sexual attention (7 items), and sexual coercion (5 items) identified within a sexual experience questionnaire (SEQ-W). Ritter (2014) developed a measure of Cybersexual harassment with 19 items (AV=active verbal; AG=active graphic; PV=passive verbal; PG=passive graphic). The questions targeted perpetrators in general, not the victims, some questions didn't target anyone, and only gender harassment was included by excluding the other two sexual harassment types (unwanted sexual attention and sexual coercion). A second questionnaire was also developed by Ritter (2014) for the online environment with 18 items with three categories named anonymity, acceptability, and aloneliness.

Typology of the offenses against the women victims in social network sites are specified by Halder and Karuppanan (2009) as cyber verbal abuse by groups of perpetrators expressing hatred, cyber defamation targeting the individual, cyberstalking,

morphing, cloning, cyber obscenity, hacking, cyber harassment, virtual rape, banning a female member and restraining her from expressing her views, cyberbullying and name-calling, domestic violence and cyber flame, impersonation, and cheating, and blackmailing and threatening.

#### *2.2.6 Workplace Incivility and Cyber Incivility*

Bullying may include mistreatment, incivility, disruptive behavior, disrespectful attitudes, or inappropriate behaviors (Wright and Khatri, 2015). Therefore, incivility can be considered as a subset of bullying and harassment, while its perceived intent and degree is lower than bullying (Kowalski et al., 2018a). Besides, incivility can be considered as one of the most frequently occurring forms of interpersonal workplace mistreatment (Giumetti et al., 2012). Incivility was also used interchangeably with disrespect and rudeness (Porath and Erez, 2009). Whereas bullying can be considered as heightened incivility that has gone unchecked, incivility consists of low-intensity, but frequent (e.g., daily occurrence), rude, discourteous, or disrespectful behaviors with an ambiguous intent to harm others (Giumetti et al., 2012; Wright and Khatri, 2015; Kowalski et al., 2018a). Hughes and Durand (2013) considered workplace aggression on a continuum along which mobbing behavior is at the aggressive extreme of behavior while incivility is at the mild extreme (p.137). Despite its low intensity as compared to the bullying, incivility can have a repeated nature (Giumetti et al., 2012). As opposed to lower prevalence rates of bullying and cyberbullying at work, in Cortina et al.'s (2001) study, victims of workplace incivility constituted 71% in a large sample of public sector employees (1180 U.S. Eighth Circuit federal court system employees excluding judges)

(Table 3 for Cortina et al.'s Workplace Incivility Items). However, Cortina et al.'s study asked employees about their experience in the last five years, which may be one of the explanations for the high percentage. As another term, workplace mistreatment consists of incivility and bullying in the workplace (Read and Laschinger, 2013).

Table 3. Workplace Incivility Items (Cortina et al., 2001)

"During the PAST FIVE YEARS while employed by the Eighth Circuit courts, have you been in a situation where any of your superiors or coworkers":
1. Put you down or was condescending to you?
2. Paid little attention to your statement or showed little interest in your opinion?
3. Made demeaning or derogatory remarks about you?
4. Addressed you in unprofessional terms, either publicly or privately?
5. Ignored or excluded you from professional camaraderie?
6. Doubted your judgment on a matter over which you have responsibility?
7. Made unwanted attempts to draw you into a discussion of personal matters?

Cyber incivility can be defined as rude or discourteous behaviors or low-intensity deviant acts exhibited in computer-mediated interactions (ICTs such as e-mail, text messages, social media, discussion forums) that violate workplace norms of mutual respect" (Lim and Teo, 2009; Giumetti et al., 2012). Like physical (face to face) form of incivility, cyber incivility may not consist of an intention by the perpetrator (Lim and Teo, 2009; Giumetti et al., 2013). Giumetti et al. (2012) modified Cortina et al.'s (2001) Workplace Incivility Scale by adding "online" to the end of each item to measure supervisor cyber incivility. Unlike Cortina et al. (2001), Giumetti et al. (2012) limited the duration to the past six months instead of five years. Giumetti et al. (2013) measured incivility by giving math tasks within an experiment to undergraduate students. Students

communicated with supervisors who they have never seen before and received either uncivil or supportive statements from them.

Differences face-to-face or cyberbullying and face-to-face or cyber incivility focused more on perceived intent and degree (Kowalski et al., 2018a). As is in cyberbullying and cyber harassment, lack of social cues such as body language and vocal tone contributes to the likelihood of ambiguity in intent to harm (Kowalski et al., 2018a). Consequences of workplace incivility were examined from the perspective of personal experiences as negative job-related, psychological, and somatic outcomes (Cortina et al., 2001). Consequences of supervisor cyber incivility can be burnout, absenteeism, and turnover intentions (Giumetti et al., 2012). Productivity decrements were also determined as a borderline between incivility and bullying, where they occur as a consequence of bullying (Hughes & Durand, 2013; Porath & Erez, 2007).

#### *2.2.7 Research Samples and Measures of Cyberbullying*

Workplaces and employees which were the subjects of studies with regard to the cyberbullying have had a diversity including university faculty and teaching personnel (Cassidy et al., 2014), staff members at a university and business school alumni (Giumetti et al., 2012), university employees across academic, administrative, research, management and technical roles (Coyne et al., 2017), manufacturing workers (Privitera and Campbell, 2009), office-based workers of a multinational corporation, including managers, professional, and support staff (Baruch, 2005), IT and IT-enabled services, and business process outsourcing sectors (D’Cruz and Noronha, 2013), nurses (D’Souza et al., 2018), trainee doctors (Farley, 2015), teachers, marketing executives, auditors, IT

managers, consultants, and social workers (Farley et al., 2016), veterinarians (Gardner and Rasmussen, 2018), pharmaceuticals, university and charity sectors (Heatherington and Coyne, 2014), female lawyers (Khan and Daniyel, 2018), white collar professions in various sectors (Snyman and Loh, 2015; Madden and Loh, 2018) and employees from various industries (Ford, 2013),.

Undergraduate students were also included in the samples commonly (e.g., in a laboratory-based simulated workplace setting, Giumetti et al., 2013). Besides, large sample sizes could be achieved by using online survey instruments such as Amazon Mechanical Turk (e.g., 3,699 participants in Kowalski et al., 2018).

Measures were also developed specifically for workplace cyberbullying (Farley et al., 2016; Jönsson et al., 2017). In respect to the traditional and face-to-face workplace bullying, several questionnaires have been utilized since the 1990s. For instance, Einarsen et al.'s (2009) NAQ-R (Negative Acts Questionnaire-Revised), which is based on 22 items with three factors (work-related bullying, person-related bullying, physically intimidating bullying) was built upon Einarsen et al.'s (1994) NAQ. Privitera and Campbell (2009) modified the NAQ-R to incorporate cyberbullying modalities of e-mail, SMS, and mobile or landline telephone calls in addition to the original face-to-face modality. In their sample, all respondents were male employees working in the manufacturing sectors. In a similar vein, in order to create a cyber incivility version, Giumetti et al. (2012) added "online" to the end of each item of the Workplace Incivility Scale developed by Cortina et al. (2001). Participants identified how frequently they experienced eight behaviors from their supervisors in the past six months. Coyne et al.

(2017) also utilized NAQ-R by adding eight digital media which are text messaging, pictures/photos or video clips, phone calls, email, chat rooms, instant messaging, websites, and social networking websites, and asking whether respondents are subject to cyberbullying at least on a weekly basis in the last six months.

However, as cyberbullying has been accepted to have a unique scope and impact extending beyond just adding the phrase “online” at the end of each item, scholars attempted to develop new measures for cyberbullying. Farley et al. (2016) created a 17-item Workplace Cyberbullying Measure (WCM) composed of two parts named work-related (10 items) and person-related (7 items) cyberbullying in order to utilize a measure particular to cyberbullying rather than adapting traditional bullying measures or using scales developed to assess other cyber harassment constructs. Jönsson et al.’s (2017) workplace cyberbullying questionnaire was composed of two versions, a long version with 20 items (CBQ) and a short version with seven items (CBQ-S) (Table 4). CBQ-S, which did not consist of all types of cyberbullying behavior, was proposed as a scale which would be most useful when combined with other scales measuring work environment. Jönsson et al. (2017) and Forssell et al. (2016) used 20-item CBQ through an online survey in a large sample of 3371 respondents in Swedish working life, and also in a relatively smaller sample of 238 working adults in the USA.

Table 4. Cyberbullying Questionnaire (Jönsson et al., 2017)

The following behaviors are often seen as examples of negative behavior in the workplace that may occur via the use of technology. When responding, consider every act in relation to these eight types of technologies: Text messaging; pictures/photos or video clips, phone calls; email;
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chat rooms; instant messaging; websites; and social networking websites (e.g., Facebook, Twitter, YouTube).
“Over the last six months, how often have you been subjected to the following negative acts related to your work through different forms of technology?”
<b>Items in the CBQ (CBQ-S items in bold).</b>
<b>1. Your supervisor/colleagues are not responding to your e-mails or text messages. (a, b)</b>
<b>2. Your work performance has been commented upon in negative terms on the Internet. (b, c)</b>
<b>3. Rude messages have been sent to you via digital media. (c)</b>
4. Persistent criticism of your work or performance has been made against you via digital media. (a)
<b>5. Necessary information has been withheld making your work more difficult (e.g., being excluded from e-mail lists) (a, b, c)</b>
<b>6. Aggressively worded messages (e.g., capital letters, bold style or multiple exclamation marks) have been sent to you via e-mail, text messages or the like. (b)</b>
7. Threatening personal messages have been sent to you via digital media. (a, b)
8. Allegations about you have been made on the Internet. (a)
<b>9. Threatening messages about your friends/your family have been sent to you via digital media. (c)</b>
10. Others have commented on the Internet that you should quit your work. (a)
11. Attacks against you as a person, your values or your personal life have been made on digital media. (c)
12. Your computer identity has been hijacked. (c)
13. Gossip or rumors about you have been spread on the Internet. (a)
14. Extracts from your messages have been copied so that the meaning of the original message is distorted. (b)
15. Offensive photos/videos of you have been posted on the Internet. (c)
16. Jokes about you have been spread on the Internet or via e-mail to several recipients. (a)
17. Viruses have intentionally been sent to your e-mail address. (c)
18. Your mistakes or errors at work are repeatedly commented about in e-mails, text messages, or the like. (a, c)
<b>19. False statements about you have been spread on the Internet. (a)</b>
20. Colleagues have excluded you from the social community online (e.g., Facebook, Twitter) (a)
<i>a = NAQ-R, Einarsen et al., 2009, b = Sprigg et al., 2012, c = Forssell, 2014.</i>

Lim and Teo (2009) developed a cyber incivility measure with 14 items through which they measured uncivil supervisor behaviors by means of e-mail. This did not



include upward or horizontal cyberbullying. The items overlapped mostly with workplace cyberbullying measures (e.g., said something hurtful to you through email, used emails to say negative things about you that he/she would not say to you face-to-face, made demeaning or derogatory remarks about you through email, not replying to your email at all, ignored a request (e.g., schedule a meeting) that you made through email., etc.). They also adopted a second measure as workplace deviance with 14 items out of 20 items from Thau et al. (2009). However, this item did not measure any aggressive online behaviors.

#### *2.2.8 Workplace Bullying / Cyberbullying and Conflict*

The link between conflict and bullying was discussed in the extant literature in terms of low-level conflicts escalating to more serious behaviors such as bullying (Leymann, 1996), workplace conflict leading to bullying and counterproductive behaviors (Ayoko et al., 2003), flaming e-mail behaviors and organizational conflict (Turnage, 2007), conflicts and conflict management styles as precursors of workplace bullying (Baillien et al., 2014), the relationship between interpersonal conflict and workplace bullying (Leon-Perez et al., 2015), conflict escalation into workplace bullying (Baillien et al., 2016), conflict solving styles and exposure to workplace bullying (Perminiene et al., 2016), conceptual and empirical differentiation between workplace bullying and interpersonal conflict (Baillien et al., 2017), and climate for conflict management and exposure to workplace bullying (Einarsen et al., 2016).

Workplace bullying has been linked to two different main predictors that are stress and conflict (Zapf and Gross, 2001). In its relation to the workplace bullying, interpersonal conflict as a job stressor was investigated as a bullying predecessor by the

extant literature (Leymann, 1996; Ayoko et al., 2003; Baillien et al., 2014; Leon-Perez et al., 2015; Vranjes et al., 2017; Einarsen et al., 2016). The interpersonal conflict was also included within a broader category of workplace mistreatment rather than a predecessor of workplace bullying (Bowling and Beehr, 2006; Hershcovis, 2011). However, Hershcovis (2011) didn't find any clear differentiating features between workplace bullying and interpersonal conflict, and interpersonal conflict's items such as "being rude to a coworker," "doing nasty things to a coworker," and "yelling at a coworker" overlapped with items of workplace bullying. Similarly, Spector and Jex (1998) included overt (e.g., being rude to a coworker) and covert (e.g., spreading rumors about a coworker) mistreatments that overlap with the workplace bullying. Leon-Perez et al. (2015) examined the role that conflict management styles play in the relationship between interpersonal conflict and workplace bullying, and their results suggested that an escalation of the conflict process from task-related to relationship conflict may explain bullying situations to some extent.

Whereas bullying is an experienced outcome, interpersonal conflict is considered to be a mutually stressful interaction (Hershcovis, 2011). Therefore, it fits into its conceptualization as a predictor rather than being an outcome. In accordance with this conceptualization, bullying was considered an escalated conflict situation in which the victim cannot manage to control the situation s/he is trapped (Zapf and Gross, 2001). Interpersonal conflict in the workplace was defined by Spector and Jex (1998) as one of the job stressors besides commonly investigated ones such as role ambiguity and role conflict. It may range from minor disagreements between coworkers to physical assaults

on others (Spector and Jex, 1998, p.357). They developed Interpersonal Conflict at Work Scale (ICAWS) composed of four items to measure conflict with other people at work, that is, how often people experience disagreements or are treated poorly at work. ICAWS correlated most strongly with organizational constraints, role conflict, intention to quit, and affective reactions, such as anxiety and depression.

### *2.2.9 Theories Utilized in Bullying and Cyberbullying Research*

A variety of theories was utilized to explain and predict workplace bullying and cyberbullying acts (Table 5). In order to explain and predict bullying behaviors, organizational and cognitive stress theories (Cortina et al., 2001), uses and gratifications theory to examine the motives to flame in electronic communications (Alonzo and Aiken, 2004), victim precipitation theory (Samnani and Singh, 2016), gender role socialization theory (Escartin et al., 2011), and social dominance and social identity theories (Salin, 2003) were used. With regard to the workplace cyberbullying, ecological system theory (Baldry et al., 2015), General Learning Model (Barlett et al., 2016 for college-aged participants), job demands-resources theory (Kowalski et al., 2018a), conservation of resources theory (Giumetti et al., 2013; Gardner et al., 2016), resource-based theories including conservation of resources theory, job demands-resources theory, effort-recovery model, affect spillover model and perseverative cognition model of stress (Park et al., 2018), dysempowerment theory (Coyne et al., 2017), and affective events theory (Vranjes et al., 2017) were used.

In addition, the above-mentioned theories, criminology theories such neutralization theory from Sykes and Matra (1957) and Akers' Social Learning and Social

Structure Theory (2011), were also used to explain and predict cyberbullying behaviors. Zhang and Leidner (2018) used neutralization theory and the social presence theory to incorporates cyber communication features that explain how perpetrators legitimize their workplace cyberbullying acts. Lowry et al. (2016) proposed the social media cyberbullying model built upon Akers' Social Learning and Social Structure Theory to explain adults' engagement in cyberbullying on social media.

Table 5. Theories Adopted in the Workplace Cyberbullying Literature

Research Studies	Theory Utilized	Workplace Cyberbullying Aspect Examined
Blizard (2016)	Power relations theory	The theory was used to explore the power dynamic that can exist in the student-faculty relationship.
Cassidy et al. (2014)	Power and control model	Power and Control Model allowed describing cyberbullying as a form of abuse whereby one party attempts to exert control over the other.
Choi (2018)	1. Deterrence theory 2. Social influence theory	These theories were used to build a model of antecedents to prevent cyberbullying in workplaces.
Citron (2009) (Cybersexual harassment)	1. Cultural feminist theory 2. Captive audience theory	Cultural feminist theory contends that women contribute to the social discourse in ways that differ from men. Captive audience theory can help appreciate the difficulty that women face as they develop their careers in a networked environment.
Coyne et al. (2017)	DysemPOWERment theory	DysemPOWERment theory was adopted to explain how cyberbullying may lead to negative individual outcomes. It suggests that an employee's appraisal of a 'polluting' work event as a violation of his/her dignity results in a perception of subjective stress, leading to disruption of employee's attitudes and behavior at work.

Research Studies	Theory Utilized	Workplace Cyberbullying Aspect Examined
Creasy and Carnes (2017)	<ol style="list-style-type: none"> <li>1. Media Richness Theory</li> <li>2. Bases of power theory</li> </ol>	<p>This theory helps to explain why workplace bullying will have a stronger effect on individual outcomes in virtual teams and team outcomes than in collocated teams.</p> <p>French and Raven's (1959) bases of power provide an excellent context for explaining the proposed relationship between workplace bullying and work-family conflict.</p>
Farley et al. (2015)	<ol style="list-style-type: none"> <li>1. Dysempowerment theory</li> <li>2. Attributional model of workplace harassment</li> </ol>	<p>Attributional model of workplace harassment proposes that the way victims attribute blame for harassment influences how fairly they perceive their work situation and subsequent well-being, attitudes, and behaviors.</p>
Giumetti et al. (2013) (Cyber incivility) Gardner et al. (2016)	Conservation of resources theory	<p>Conservation of resources theory suggests that, when an employee experiences a threat of loss or an actual loss of resources, he or she is likely to experience stress.</p> <p>Giumetti et al. (2013) used COR as the guiding framework because cyber incivility is thought to deplete energetic resources in much the same way that other stressors do, ultimately leading to negative outcomes like burnout.</p>
Vranjes et al. (2017)	Affective events theory	<p>Theory suggests that motions evoked by certain work events may fuel emotion-driven behaviors. This study constructed and proposed an Emotion Reaction model of workplace cyberbullying.</p>
Kowalski et al., 2018a	Job demands-resources theory	<p>Theory suggests that worker outcomes are determined by both job demands and resources. When workers perceive high job demands with few resources to cope with those demands, they experience negative personal and workplace outcomes.</p>

Research Studies	Theory Utilized	Workplace Cyberbullying Aspect Examined
Park et al. (2018) (Cyber incivility)	Resource-based theories <ol style="list-style-type: none"> <li>1. Conservation of resources theory</li> <li>2. Job demands-resources theory</li> <li>3. Effort-recovery model</li> <li>4. Affect spillover model</li> <li>5. Perseverative cognition model of stress</li> </ol>	Using resource-based theories, they examined two resources (i.e., job control, psychological detachment from work) that may alleviate the effects of cyber incivility on distress.
Pickens (2017)	The transactional model of stress and coping	The transactional model of stress and coping helps to evaluate and understand how individuals deal with stressful events.  Maslow's hierarchy of needs and Bandura's social learning theory were used as secondary theories.
Madden and Loh (2018)	<ol style="list-style-type: none"> <li>1. Bystander effect paradigm</li> <li>2. Social identity approach</li> </ol>	The bystander effect paradigm was used to help explain what inhibits individuals from helping, especially in the presence of others. The Social Identity approach, which includes Social Identity Theory and Self Categorization Theory assumes that a significant portion of a person's self-image stems from the social category group in which a person sees himself or herself belonging.
Zhang and Leidner (2018)	Neutralization Theory	Neutralization theory was used to explain how workplace cyberbullies justify their bullying behaviors. Social presence theory was adopted to understand how cyber communication features influence workplace cyberbullying behaviors
Zhang and Leidner (2018)	Social Presence Theory	Social presence is an embedded construct within each of the cyber features which are perceived invisibility, perceived asynchrony, perceived anonymity and perceived publicity.

### *2.2.10 ICTs as Enablers and Inhibitors of Workplace Cyberbullying*

Collaboration is an essential part of teamwork, and effective collaboration leads to an effective team outcome (Jarvenpaa and Leidner, 1999). Knowledge sharing leads to team effectiveness by means of collaboration (Alsharo et al., 2017). Organizations and collocated teams use information and communications technologies (ICTs) such as telephone, voice messages, email, and enterprise-level information systems to facilitate communication and collaboration (Axtell et al., 2004). However, VTs depend exclusively on ICTs in order to survive since ICTs are the complete substitutions for VTs for the physical location. VTs as geographically and temporally dispersed teams can use a wide range of digital collaboration tools based on organization's or team's preferences, and/or organization's communication rules and instructions (for instance, use of Enterprise Social Media or a project management software accessible on laptops and mobile devices). However, the technology used by VTs for communication and collaboration is not the ends but the means to ensure an effective social interaction as well as the maintenance and accumulation of social capital among members (Alsharo et al., 2017).

Extant literature examined different types of communication media through which bullying is committed. In their questionnaire that measures the extent of workplace cyberbullying, Jönsson et al. (2017) asked respondents to consider text messaging, pictures/photos or video clips, phone calls, e-mail, chat rooms, instant messaging, websites, and social networking websites (e.g., Facebook, Twitter, YouTube). However, some of their items referred to e-mails directly. Baruch (2005) identified a considerable level of bullying in both e-mail and other communication media, all of which led to

negative outcomes regardless of the media utilized. Traditional face-to-face contact and meetings and phone conversations consisted of the same levels of bullying via email. Besides e-mails and text messages used as common communication media in workplaces, social media such as Facebook, Instagram, Twitter, social forums, and digital communities have been increasingly utilized by coworkers for work-related and social interaction (Jönsson et al., 2017).

### *2.2.11 Gender in Workplace Bullying and Cyberbullying*

Due to gender-related power imbalance, it is reasonable to believe that women are more exposed to face-to-face bullying. However, empirical studies on bullying victimization show a mix of results (Bowling & Beehr, 2006). In general, extant literature examined workplace bullying by conducting research in mixed-gender samples. Privitera and Campbell (2009) investigated bullying in male-dominated workplaces to grasp the increased risk of workplace bullying. Einarsen and Raknes (1997) surveyed male industrial workers, supervisors, and managers within a Norwegian marine engineering industry, and found that aggression and harassment are significant problems affecting 7% of the men in at least one harassment behavior and 22% subjected to one or more of harassment acts. 2017 U.S. Workplace Bullying Survey (Namie, 2017) published by Workplace Bullying Institute reported that 19% of Americans are bullied while another 19% witnessed it, and 70% of perpetrators are men, 60% of targets are women.

Pew Research Center's study (Duggan, 2014) reported that young women between the age of 18 and 24 experienced certain severe types of harassment at disproportionately high levels, men (44%) are more likely than women (37%) to



experience at least one of the elements of online harassment, and men were more likely than women to encounter name-calling, embarrassment, and physical threats.

In line with the male aggressiveness and dominance at workplaces as well as competitive, unyielding and aggressive strategies in interpersonal conflicts, some studies suggested that bullying by men is expected to be more than women (Miller, 1991). Besides factors such as being a private enterprise, a large organization, and an industrial organization, male-dominated organizations are among those with higher prevalence rates of bullying (Einarsen, 2000). Among male workers in a Norwegian shipyard, the prevalence of bullying was as high as 17% (Einarsen & Skogstad, 1996). With respect to the incivility in the workplace, women endured greater frequencies of incivility than did men (Cortina et al., 2001). However, both genders experienced similarly negative effects on job satisfaction, job withdrawal, and career salience.

Some studies found that women's vulnerability to face-to-face workplace bullying is more than men (Björkqvist et al., 1994; Cortina et al., 2001; Salin, 2003). Some studies also didn't find any gender differences for workplace bullying and harassment (Einarsen & Skogstad, 1996; Leymann, 1996; Hoel and Cooper, 2000; Notelaers et al., 2011). In the workplace, the rate of same-sex harassment is higher for males than females (Keashley et al., 2012). In the context of relational bullying, women bully almost exclusively other women coworkers (Leymann, 1996; Hoel et al., 2001; Keashley et al., 2012).

As for children, tougher and more aggressive interactions were observed among boys than those among girls (Olweus, 1991). Compared to female adolescent students,

male students were more likely to be bullies and victims in both physical and cyber-environments (Erdur-Baker, 2010). Besides, this study indicated that cyberbullying and traditional bullying were related to male students but not for female students. Studies with regard to adolescent cyberbullying found that middle and high school girls reported more victimization than boys, whereas girls are more likely to be perpetrators targeting other females (Faucher et al., 2014). Li (2006) reported that males in their junior high school sample were more likely to be bullies and cyberbullies than their female counterparts, and female cyberbully victims were more likely to inform adults than their male counterparts. Nevertheless, the majority of studies with respect to the school cyberbullying revealed that there is no significant difference in victimization for either gender (Tokunaga, 2010).

Perceptions of bullying may vary based on the gender of the target. For instance, Escartin et al. (2011) concluded that female employees emphasized emotional abuse and professional discredit more than male employees in their definitions of bullying. Abusive working conditions were emphasized by men as opposed to women. This study also showed that female employees rated the severity of many negative acts of bullying more than men did. Biber et al. (2002) hypothesized that young adult females and males would differ in their evaluations of online harassment behaviors. Among eight potentially harassing acts (sexually explicit pictures, content, jokes, misogyny, the use of nicknames, requests for company, sexual favors, and comments about the dress), women rated online pictures and jokes as significantly more harassing than men.

In particular, females are exposed to sexual harassment and cyberstalking more than males are (Staude-Müller et al., 2012), and also new forms of sexual and gender harassment such as sexting, morphing, virtual rape and revenge porn (Li, 2007; Dooley et al., 2009; Kowalski et al., 2012; Faucher et al., 2014). Women are disproportionately the targets of harassment and hate speech in cyberspace, and they are exposed to the non-consensual creation and distribution of sexual images in the context of harassment, stalking, and family or intimate violence (Henry and Powell, 2015). Women also reported more insults online (Staude-Müller et al., 2012). In most cases, through social network sites, male harassers attack the victim for sexual purposes like morphing (e.g., using the image for pornographic purposes), cyberstalking, and non-sexual purposes (e.g., harassment and bullying) (Halder and Karuppanan, 2009).

It is also important to note that technology-facilitated online violence can target not only women but also men (Henry and Powell, 2015). While physical sexual harassment was committed mostly by men against women, sexual harassment against men by men and against women and men by women are also possible (Berdahl, 2007). Staude-Müller et al. (2012) reported that men were more strongly exposed to impersonation, and flaming online, whereas denigration, outing and trickery, and exclusion were equally prevalent for both genders.

Another interesting point is that females are more likely to cyberbully other females, which is also related to relational bullying (Kowalski and Limber, 2007; Faucher et al., 2014). Besides relational bullying, female perpetrators may target the victim

mainly for ideological differences, hatred, or for taking revenge (Halder and Karuppanan, 2009).

There are inconsistent findings in the literature as regards the gender of cyberbullying victims. No significant gender differences were noted by Balakrishnan (2015) in a sample of Malaysian young adults (between 17 and 30 years old). Although females in this study outnumbered males for cyber-victimization as predicted, they were also found to cyberbully more than males. Brack and Caltabiano (2014) concluded that there is no gender difference observed with regard to cyberbullying behavior in a sample of Australian adults. Children cyberbullying literature exhibited that boys are more involved as cyberbullies than girls (Baldry et al., 2015).

Workplace cyberbullying research has also demonstrated inconsistent findings similar to the children cyberbullying and traditional workplace bullying. Forssell (2016) found that men were exposed to cyberbullying more than women, whereas face-to-face bullying didn't show any significant relationship for gender. Women reported more workplace bullying, but not more cyberbullying than men (Gardner et al., 2016).

The gender of the supervisor was also an important predictor of cyber incivility at the workplace. Male employees with male supervisors reported higher levels of active cyber incivility compared to those with female supervisors, while female employees with male supervisors reported higher levels of active cyber incivility than those with female supervisors (Lim and Teo, 2009). Both male and female employees experienced higher levels of passive forms of cyber incivility from female supervisors than male supervisors (Lim and Teo, 2009).

### *2.2.12 Hierarchical Position and Cyberbullying*

Like the finding regarding gender, there are conflicting findings with respect to the hierarchical position of bullies and cyberbullies. However, most of the extant literature on face-to-face workplace bullying showed that managers are seldomly bullied by subordinates (Zapf et al., 2011; Forssell, 2018).

A study by Hoel et al. (2001) found that women managers were more likely to be bullied in management positions while men were more likely to be bullied as workers or supervisors. Among university employees, individuals in superior positions harassed more often than individuals in subordinate positions (Björkqvist et al., 1994). Rayner (1997) identified line managers or senior line managers are often bullies. Nevertheless, horizontal bullying (between peers), upwards bullying (from subordinates to superiors) and cross-level co-bullying (where peers and/or subordinates join superiors) are also reported while downwards bullying (from superiors to subordinates) is most common (D'Cruz and Rayner, 2013; D'Cruz and Noronha, 2013).

Recent studies on cyberbullying in working life show differences regarding gender and organizational position different from most studies on face-to-face bullying (Forssell, 2016; Gardner et al., 2016). Unlike studies on face-to-face bullying, Forssell (2016) found that men and managers were exposed to cyberbullying to a greater extent than women and non-managers. A similar observation was made by Gardner et al. (2016), who found that managers experienced more cyberbullying than non-managerial employees.

Cyber incivility behaviors also depended on the gender of the supervisor, in that, male employees with male supervisors reported higher levels of active cyber incivility, and female employees with male supervisors reported experiencing higher levels of active cyber incivility from male supervisors than with female supervisors (Lim and Teo, 2009). Some studies only examined downward cyberbullying, such as supervisor cyber incivility, and it was positively related to burnout, absenteeism, and turnover intentions of subordinates (Giumetti et al., 2012).

### *2.2.13 Antecedents / Predictors of Cyberbullying*

Antecedents of workplace bullying have been under scrutiny by scholars since the 1990's. Personality traits of victim and offender were highlighted by Einarsen (2000). However, the fact that behaviors of the victim as a result of bullying may be misattributed as pre-existing differences in personality had been explicated by Leymann (1996) who proposed the work environment hypothesis positing that factors in the broader organizational environment such as leadership and work organization are significant enablers and facilitators of workplace bullying as compared to the individual-level factors. Leymann (1996) enumerated deficiencies in work design, poor working conditions, deficiencies in leadership behavior, and lack of organizational policies and intervention as the antecedents of workplace bullying. Nevertheless, the impact of organizational climate and work environment specific to an organization was also discussed by Einarsen (2000). Changes in organizations such as increased diversity, changes in management, pay cuts or freezes, and increased use of part-time employees

were related to the witnessed and experienced workplace aggression (Baron and Neuman, 1996).

With respect to the antecedents of sexual harassment at the workplace, Fitzgerald et al. (1997) listed organization factors that communicate tolerance of harassment and job characteristics such as gender ratio (females in the minority) and nature of job tasks (doing tasks traditionally performed by men).

A three-way model of workplace bullying developed by Baillien et al. (2009) as a result of inductive case analyses suggested three tracks or pathways that are antecedents of workplace bullying. These tracks are intrapersonal frustrations (strains) (e.g., experiencing low job satisfaction, feeling unhappy about recent changes in the organization or going to work after yet another sleepless night), the interpersonal conflict that arises from work-related problems or personal issues between employees or from a combination of both, and explicit or implicit stimulation through team and organizational characteristics (e.g., the culture of gossip where mockery and backbiting are daily habits (p.7-9).

Salin (2003) explained antecedents of bullying which also interact with each other as enabling structures to the occurrence of workplace bullying such as a power imbalance, a perception of low costs to the perpetrator for their behavior, and dissatisfaction and frustration; motivating structures as the characteristics of the environment that encourage bullying, including competition for jobs and an organizational culture that rewards aggressive or bullying behavior; and precipitating

processes that trigger bullying, such as a restructure or other forms of organizational change.

Other predictors of workplace bullying were identified as envy (Björkqvist et al., 1994; Einarsen et al., 1994; Vartia, 1996), competition about jobs and status (Björkqvist et al., 1994), job insecurity (De Cuyper et al., 2009), an organizational change resulting in role conflict and job insecurity (Baillien and De Witte, 2009), a stressful work environment (Hauge et al., 2009), poorer psychosocial work environments (Agervold, 2009), high workloads (Branch et al., 2013), high job ambiguity and job complexity as well as low autonomy (Baillien et al. 2009), a recent change in job and change in manager (Rayner, 1997), and stressors such as role conflict, role ambiguity, role overload, and work constraints (Bowling and Beehr, 2006).

Antecedents of workplace cyberbullying overlapped mainly with face-to-face bullying. Forssell (2018) explicated the predictors of cyberbullying as social organizational climate, social support, influence over work, and gender and formal position in the workplace.

Normative beliefs about aggression and moral disengagement (Kowalski et al., 2014)

#### *2.2.14 Consequences of Cyberbullying*

Consequences of face-to-face workplace bullying were described extensively in the extant literature (Nielsen and Einarsen, 2018). Individual consequences were indicated as leaving the organization as a last resort after victims tried constructive conflict-solving strategies (Zapf and Gross, 2011); social consequences such as social isolation, stigmatizing, unstable social and family relationships, alienation to



organizational citizenship behaviors, voluntary unemployment and social maladjustment; psychological and physical health consequences such as decreased job satisfaction, decreased mental and physical health, compromised physical health, a feeling of desperation and total helplessness, great anxiety and despair, subsequent aggressive behavior, depression, symptoms reminiscent of the post-traumatic stress disorder and suicides; economic consequences such as paid without any real work to do, increased turnover intentions, organizational withdrawal, missed future career advancement opportunities, job performance, absenteeism, and long periods of sick leave (Leymann, 1990; Björkqvist et al., 1994; Baruch, 2005; Bowling and Beehr, 2006; Hershcovis, 2011). In their meta-analysis of face-to-face workplace bullying, Nielsen and Einarsen (2018) found that bullying was most strongly associated with psychological health in the form of post-traumatic stress symptoms, depression, and anxiety.

Individual-level consequences of cyberbullying for victims could include (i) socio-professional consequences such as workplace isolation, professional defamation and stigmatizing, absenteeism, reduced job satisfaction, and job loss; (ii) overall health consequences including anxiety, despair and depression, burnout, aggression, and suicide; and (iii) economic consequences such as job loss, missed career advancement opportunities, poor job performance, and absenteeism (Farley, 2015; Gardner et al., 2016; Giumetti et al., 2012; Kowalski et al., 2018; Muhonen et al., 2017; Privitera and Campbell, 2009). The cyberbullying literature highlights individual-level professional consequences of victimization as poor work engagement, job dissatisfaction, higher intention to quit, and cyberslacking or cyberloafing (Coyne et al., 2017; Farley, 2015;

Muhonen et al., 2017). Exposure to cyberbullying behaviors also has personal consequences, such as lower well-being, higher stress levels, and high risk of suicide (Brochado et al., 2017; Kowalski et al., 2014).

Extant literature generally discussed the individual consequences of cyberbullying victimization, and team consequences were absent since the unit of analysis was mostly individuals, and they sometimes included organizations.

The impact of consequences can be reduced or increased by means of mediating factors. For instance, social support from superiors and colleagues can influence the social organizational climate, and in turn, can alleviate the negative consequences on the target. Social support from superiors was found to have a stronger impact by Muhonen et al. (2017). Virtual harassment is associated with diminished psychological health, both directly and mediated by fear of future harassment (Ford, 2013).

Gilson et al. (2015) mentioned that the millennial generation has advantages to adopt and use technology when compared to previous generations. Thus, barriers and difficulties may not be serious factors for this new generation. However, as it is generally mentioned in the adolescent cyberbullying literature, the millennial generation has had engaged in more cyberbullying while they attend secondary and high school as well as universities. Therefore, whereas employees have the capabilities to maximize the benefits of working in a virtual team, other issues such as cyberbullying and online aggression might arise as novel problems that accompany this generation from school years to the workplace environment. Eventually, the positive outcomes such as increased

effectiveness and project quality may be attenuated with the negative effect of online aggression.

CHAPTER III  
THEORETICAL FRAMEWORK AND UNDERLYING CONCEPTS

**3.1 Conceptual Model**

Our research investigates cyberbullying among members of global virtual teams (GVTs), which are globally dispersed and culturally and functionally diverse teams. Such teams could be laterally / horizontally connected besides being hierarchically connected (DeSanctis & Monge, 1999). They use advanced technology for communication, collaboration, and coordination, and are assembled and disbanded as needed (Sarker et al., 2011; Cheng et al., 2016). Although literature often investigated project teams, the purpose of GVTs could include ongoing operational activities rather than having a definite start and end dates (Ford et al., 2017).

In our conceptual model, target suitability (value, visibility, and accessibility of the target) and lack of capable guardianship lead to opportunities to cyberbully for motivated offenders. Communication medium related characteristics play a key role in the realization of opportunities. The exploitation of these opportunities by the motivated cyberbullies leads to the victimization of other GVT members as suitable targets. Occurrence and intensity of cyberbullying victimization are moderated by team diversity and team development stages. Ultimately, victimized GVT members suffer from the consequences of cyberbullying. In addition to these individual consequences, GVTs are

also affected by these negative acts. The following sections will elaborate on each construct that constitutes our conceptual model.

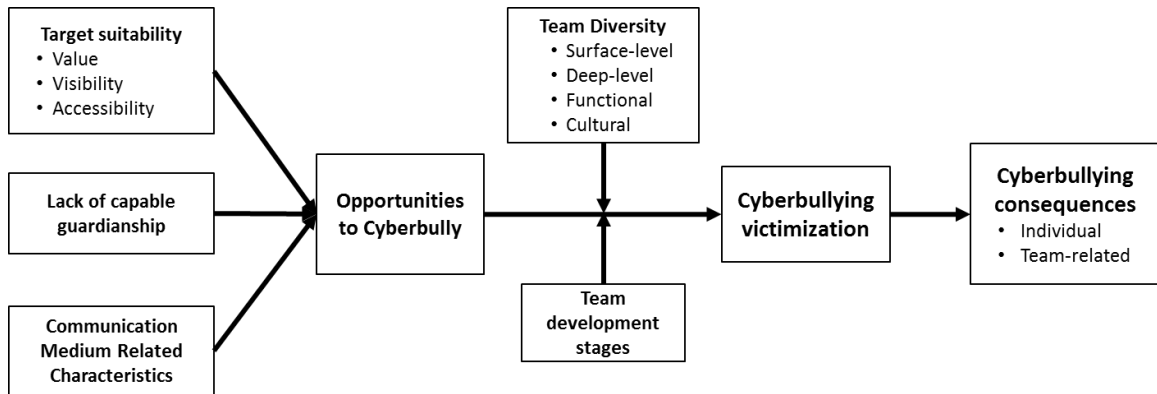


Figure 1. Conceptual Research Model for Cyberbullying in Global Virtual Teams

The following sections will elaborate on the theoretical underpinnings with all the constructs that constitute our conceptual model.

### 3.2 Selection of the Routine Activities Theory as the Main Theoretical Tenet

Our research model (Figure 1) is based primarily on the routine activities theory – RAT (Cloward and Ohlin, 1960). Based on Sutherland and Cressey’s (1960) classification regarding the types of explanation for criminal behavior as dispositional (prior life experiences of the person or genetic) and situational (mechanistic or dynamic), RAT can be considered a situational theory and is grounded on opportunity theories (Cloward & Ohlin, 1960; Yar, 2005). It provides an explanation of how opportunities for criminal victimization are produced by individuals’ everyday routines and lifestyle behaviors that expose them to risk (Hindelang et al., 1978; Cohen and Felson, 1979). Rather than inclinations and abilities that victims or offenders have acquired up to date,

the circumstances in which predatory criminal acts are carried out are emphasized (Sutherland and Cressey, 1960; Cohen and Felson, 1979).

Cohen and Felson (1979) built their theory upon the relationship between the changes in households' socioeconomic structure and predatory crime rates in the US. Increased participation of women in the workforce and staying away from their homes created an opportunity for offenders to break into the houses for burglary. Besides, offenders found more opportunities to rob women in the streets. Changes in the lifestyle of household members, in particular, that of women, created more opportunities for motivated offenders to perpetrate a crime against more suitable targets (e.g., household items, women in the street, etc.) with decreased guardianship (vacant houses during the day time). Cohen et al. (1981) defined guardianship as "the effectiveness of persons (e.g., housewives, neighbors, pedestrians, private security guards, law enforcement officers) or objects (e.g., burglar alarms, locks, barred windows) in preventing violations from occurring, either by their presence alone or by some sort of direct or indirect action" (p.507). Cohen and Felson (1979) found strong support for their theory and its constituent constructs after they analyzed crime rates between 1947 and 1974. RAT focuses on explaining the dynamics of criminal events, patterns in criminal victimization, and predictions of victimization risks or likelihood (Cohen and Felson, 1979; Cohen et al., 1981). Other studies on physical crimes supported hypotheses of RAT, and the theory was applied to various forms of street crimes and delinquency with good explanatory power (Holt and Bossler, 2008).

Routine Activities Theory (RAT) which is sometimes named as lifestyle – routine activities theory has been considered as a combination of two theories, which are lifestyle-exposure theory (Hindelang et al., 1978) by Cohen & Felson (1979) (Osgood et al., 1996; Choi, 2008). RAT argues that a motivated offender is not the only requisite for a crime to occur, but it must also be accompanied by two other necessary elements: a suitable target and lack of capable guardianship over the target (Cohen and Felson, 1979). Victimization is most likely to occur when targets converge in time and space with motivated offenders, while guardianship is not adequate. Thus, in RAT, three necessary elements for a crime to occur (Figure 2) are (i) presence of individuals who are able or willing to commit offenses; (ii) presence of vulnerable individuals or property as suitable targets, and (iii) lack of capable and willing guardians (individuals, devices, systems) which can ward off the offenders (Cohen and Felson, 1979).

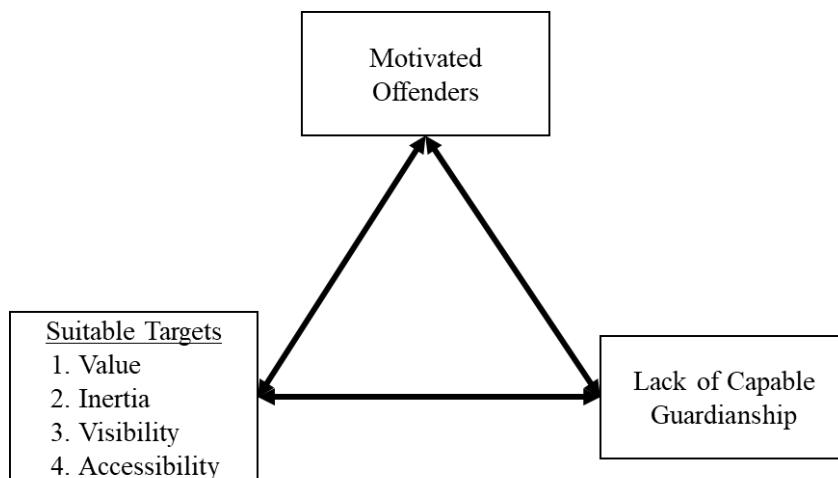


Figure 2. Three Necessary Elements of Crime according to the Routine Activities Theory

Although RAT has been established in the context of physical crimes, the emergence of ICTs and the Internet create an unprecedented network of people and objects worldwide. These developments have expanded opportunities for cyber-crime (Pratt et al., 2010). Accordingly, RAT has been utilized to explain various cybercrimes, such as malware victimization (Holt and Bossler, 2013), cyberstalking (Leukfeldt and Yar, 2016), online harassment (Holt and Bossler, 2008; Vakhitova et al., 2016), online piracy (Petrescu et al., 2018), phishing (Leukfeldt, 2014), and online identity theft (Williams, 2015). Studies have also adopted RAT to investigate cyberbullying, cyber harassment, and cyberstalking in non-working contexts, such as K-12 students (e.g., Bossler et al., 2012), college students (e.g., Reyns et al., 2011), and the general population (e.g., Leukfeldt and Yar, 2016). Appendix 2 includes the details of cyberbullying and cybercrime literature that utilizes RAT.

Studies have also adopted RAT to investigate cyberbullying, cyber harassment, and cyberstalking in non-working contexts, such as K-12 students (e.g., Bossler et al., 2012), college students (e.g., Reyns et al., 2011), and the general population (e.g., Leukfeldt and Yar, 2016) (see Appendix 2, for details of cyberbullying literature that utilizes RAT).

These small groups of studies suggest that theoretical tenets of RAT could be adopted to explain acts of GVT cyberbullying. Target suitability elements (value, visibility, and accessibility of the target) represent attributes that make a target co-worker attractive to motivated offenders, thereby increasing opportunities to cyberbully. On the other hand, the presence of capable guardians, such as conscientious managers, clear



organizational policies against cyberbullying, a healthy organizational culture, and supportive peer co-workers, would reduce cyberbullying opportunities for motivated offenders.

### *3.2.1 Studies that Utilized RAT in Cybercrime and Deviance*

As explained briefly in the previous section, RAT was utilized to explain various online crimes in the literature. These studies which are detailed in Appendix 2 are malware victimization (Bossler and Holt, 2009; Holt and Bossler, 2013), cyberstalking (Reyns et al., 2011), online harassment victimization (Holt and Bossler, 2008), cyberbullying (Navarro and Jasinski, 2012), computer crime victimization by implantation of viruses (Choi, 2008), phishing (Hutchings and Hayes, 2009; Leukfeldt, 2014), online piracy (Petrescu et al., 2018), online consumer fraud victimization (Pratt et al., 2010; van Wilsem, 2011b; Reisig and Holtfreter, 2013), online identity theft (Williams, 2015), risk of insider threats (Wang et al., 2015; Williams et al., 2018), and comparison of risk factors between threat victimization by digital and traditional modes (van Wilsem, 2011a).

RAT was also used to investigate multiple online crimes. Ngo and Paternoster (2011) examined seven types of cybercrime (getting a computer virus, receiving unwanted exposure to pornographic materials, being solicited for sex, encountering phishing, experiencing online harassment by a stranger, and by a non-stranger, and experiencing online defamation) in their study. Marcum et al. (2010) examined online sexually explicit materials (e.g., pornography), non-sexual harassment (e.g., unwanted emails, instant messages), and sexual solicitation (e.g., request for either online or offline

sexual interaction). Based on previous studies and also insufficient and contradictory results with regard to the applicability of RAT to different types of cybercrime, in a large sample of Dutch citizens (9,161 respondents), Leukfeldt and Yar (2016) investigated the usefulness of RAT in explaining victimization after targets are subject to cybercrimes which are enumerated as hacking, malware infection, identity theft, consumer fraud, cyberstalking, and cyberthreat. Yar (2005), and Leukfeldt and Yar (2016) discussed the challenges of RAT constructs in explaining different types of cybercrime due to, among others, RAT's premise regarding the convergence of time and space for offenders and suitable targets. Yar (2005) argued that RAT is limited in explaining cybercrime by asserting that there are important differences between 'virtual' and 'terrestrial' worlds that limit the theory's usefulness. Furthermore, Leukfeldt and Yar (2016) didn't include inertia, which refers to the physical properties of objects or persons, and they criticized it for being inapplicable in the cyber environment. They utilized value, visibility, accessibility, technical capable guardianship, and personal capable guardianship as independent constructs. They conceptualized the value as the financial characteristics of targets comprised of personal income, household income, financial assets, financial possessions and savings; visibility of online activities as composed of the frequency of Internet use, targeted browsing (searching for specific information such as news) and untargeted browsing, direct communication via e-mail, MSN and Skype, chatting in chat boxes, online gaming, activities on online forums and social network sites, using Twitter, downloading, and buying online; and accessibility as the use of the operating system and web browser by the target. They constructed technical capable guardianship consisting of

having an up-to-date virus scanner while personal capable guardianship included target's technical knowledge and online risk awareness. Leukfeldt and Yar (2016) concluded that it is not possible to confirm or refute the applicability of RAT to different types of cybercrime since each study had its limitations and challenges such as small non-representative samples, poor operationalization of RAT, focusing on only one type of cybercrime or implementing a broad range of crimes, and different contents of online routine activities. Their study on the victimization of six cybercrime types also couldn't find any effects of the value of the target and technical capable guardianship on victimization.

Reyns et al. (2011) explained opportunities for cyberstalking victimization in cyberspace environments where traditional conceptions of time and space are less relevant, as Yar (2005) and Leukfeldt and Yar (2016) indicated. Reyns et al. (2011) expanded RAT to include cyberspaces in order to investigate spatial and temporal divergence between victims and offenders in cyberspace environments. In terms of cyberstalking victimization of college students, independent variables leading to victimization were specified as online exposure to motivated offenders, online proximity to motivated offenders, online guardianship, online target attractiveness, and online/electronic deviant lifestyle. Online exposure to motivated offenders which also constitute routine activities was composed of the amount of time spent online each day, the number of online social networks owned by the respondent, the number of times each day the respondent updates his or her online social network accounts, the number of photos the respondent has posted online, and whether the respondent uses AOL Instant

Messenger. Online proximity to motivated offenders consisted of allowing strangers to access your online social network accounts, number of friends in the online social networks, and using an online service to assist her/him in acquiring online friends. Online guardianship included privacy settings that limit third party access to an online profile, profile tracker to view who visited the online profile, and the existence of deviant peers who may abuse victim's information posted online. Target attractiveness was composed of personal information posted in the online profile, including gender, relationship status, and sexual orientation. They found that online exposure and proximity have the weakest relationships with victimization, online target attractiveness and guardianship had moderate effects, and online deviance had the strongest effect on all forms of victimization. In contrast, Ngo and Paternoster (2011) found that exposure to motivated offenders only predicted online harassment by a non-stranger among seven types of cybercrime they examined.

With regard to the insider threats to IS applications, Wang et al. (2015) utilized RAT's four target suitability elements, which are value, inertia, visibility, and access along with data protection level as guardianship. They synthesized RAT with regression models (Weibull hazard model and zero-inflated Poisson-Gamma model) to quantify the risk of insider threats and identify the relevant causes and examined the risk of insider threats by measuring the inter-arrival times of two consecutive unauthorized access attempts and the daily number of unauthorized attempts. In contrast with Leukfeldt and Yar (2016), they also included inertia as the strength of application controls that can make it difficult for an internal perpetrator to either steal data from an application or

achieve a malicious purpose within an application (Wang et al., 2015, p.98). Besides, they conceptualized value as the value of the information contained and of functionality processed by an application for an internal perpetrator; visibility as the extent to which an internal perpetrator may know the existence and the whereabouts of the application; and accessibility as the degree of openness and ease of access to the data and functionality of an application for an internal perpetrator (Wang et al., 2015, p. 95). They found significant relationships for all variables, including the inertia in predicting an application's exposure to risks from unauthorized access attempts. In a similar vein to the physical inertia, greater inertia of online target decreased the risks.

### **3.3 Elements of Routine Activities Theory (RAT)**

In RAT, the use of “target” is preferred over the use of “victim” because the victim might be completely absent from the crime scene, and hence target can be a place or an object related to that victim (Felson and Clarke, 1998). For instance, the object (e.g., a television at home) is stolen by a burglar in the absence of the owner (victim) and other guardians. Target suitability is assessed based on four criteria, that are value, inertia, physical visibility, and accessibility of crime target, all of which are considered from the offender's viewpoint (Cohen and Felson, 1979; Felson and Clarke, 1998). Some targets may offer more tempting crime opportunities due to the availability and level of these four elements (Felson and Clarke, 1998). First, value refers to “the material or symbolic desirability of persons or property targets to potential offenders,” and it may be an economic benefit or enjoyment that the offender acquires (Cohen et al., 1981). Second, inertia refers to how easily a target can be removed or overcome by the offender

(Cohen et al., 1981). Inertia can be the weight or size or attached or locked features of a property inhibiting its illegal removal, or the physical capacity of persons to resist attack (Cohen et al., 1981; Wang et al., 2015). Third, visibility implies whether an offender knows that a target exists and knows about its whereabouts (Wang et al., 2015). When someone flashes money in public or puts her/his valuable goods by the window at home, it increases the visibility of the target (Cohen and Clarke, 1998). Finally, accessibility of crime target addresses the ability of an offender to get to the target and then to get away from the scene of crime easily, and it consists of features of everyday life that make it easy for offenders to come into contact with their target (Leukfeldt, 2014; Wang et al., 2015). For instance, a person walking in a crowded street may be an accessible target for pickpocketing since it can be easy to approach the target without being noticed, pull the wallet out of his pocket, and move away from the target.

Cohen et al. (1981) proposed the mediating role of five risk factors as part of an opportunity theory of criminal victimization, and those factors were explicated as exposure to potential offenders, proximity to potential offenders, guardianship, the attractiveness of potential targets, and definitional properties of specific crimes. Hindelang et al. (1978) referred to exposure to potential offenders and guardianship as the dimensions of lifestyle which expose targets to the risk of victimization. In physical terms, Cohen et al. (1981) defined exposure as “the physical visibility and accessibility of persons or objects to potential offenders at any given time or place,” and target attractiveness as “the material or symbolic desirability of persons or property targets to potential offenders, as well as the perceived inertia of a target against illegal treatment.”

These two concepts, exposure, and target attractiveness, also consisted of four main elements of target suitability on which we elaborated above.

### *3.3.1 Online Routine Activities*

Individuals' activities, interactions, and social structure make them predisposed to crime, and they provide opportunities for offenders to perpetuate criminal or deviant acts against them. Recently, increasing dependency on computer systems due to the rapid development of technology is one of the main opportunities (Choi, 2008). Therefore, in cyberspace, computer criminals can be motivated to find suitable targets who are online users who connect to the Internet without precaution or without equipping adequate computer security (Choi, 2008). In a study of victimization through Facebook (FB) among university students (Kokkinos and Saripanidis, 2017), risky Facebook lifestyles comprised of indiscreet FB content, time spent on FB, number of FB friends, knowledge and use of FB privacy settings besides individual differences and risk factors. Marcum et al. (2010) attempted to identify causal reasoning for the victimization of adolescents online and found that participating in behaviors that increased exposure to motivated offenders and target suitability increased the likelihood of online victimization whereas taking protective measures against victimization to improve capable guardianship did not decrease the likelihood of victimization. Pratt et al. (2010) argued that sociodemographic characteristics shape routine online activity (e.g., spending time online and making online purchases) and, indicators of routine online activity fully mediate the effect of sociodemographic characteristics on the likelihood of being targeted for fraud online. Holt and Bossler (2008) used RAT for cyber victimization resulting from online

harassment, and their independent variables affecting the victimization were specified as computer ownership and speed, computer use, and guardians. They found that while general exposure to others via the Internet does not increase victimization, the number of hours an individual spends in chatrooms and instant messaging as well as their involvement in computer deviance, has a significant impact on their risk of victimization. Only hacking within the computer deviance measure was significant, and lack of social guardianship (having more online deviant friends) influenced harassment victimization. They also assessed whether sex, race, age, and employment influence online harassment, found that only being a female significantly increases the suitability to be a target for harassment.

Studies that have investigated cybercrime or deviance from the perspective of routine activities theory so far didn't examine any interpersonal relationships related to the workplace. Insider threats targeted the confidential information stored in information systems at organizations, not the employees, to gain a material advantage for themselves and others (Wang et al., 2015; Williams et al., 2018). Furthermore, elements of target suitability (value, inertia, visibility, accessibility) in cybercrime and deviance were included only by three studies (Leukfeldt, 2014; Wang et al., 2015; Leukfeldt and Yar, 2016) whereas some of the studies included several of these elements within their online target attractiveness construct (e.g., Reynolds et al., 2011). While Wang et al. (2015) specified all four elements of target suitability, Leukfeldt (2014) and Leukfeldt and Yar (2016) removed inertia due to its physical nature (weight, ease of removal, etc.). When a target is a person, the challenge in determining the value and inertia becomes more



apparent. Thus, in general, studies avoided to evaluate these target suitability elements of RAT, and very few of them referred to some of them, and instead, they focused on personal and demographic characteristics such as gender, relationship status, sexual orientation (Reyns et al., 2011), online routine activities such as computer ownership and use (Holt and Bossler, 2008), availability (how often teens went online) and suitability (what specific types of activities teens are engaged in online) of targets (Navarro and Jasinski, 2012), communicating with strangers or people who have never been met in person, voluntarily giving personal information or setting the account as public instead of private (Marcum et al., 2010; Ngo and Paternoster, 2011), and clicking/opening links in e-mails or websites (Ngo and Paternoster, 2011).

In RAT, the use of “target” is preferred over the use of “victim” because the victim might be completely absent from the crime scene (Felson and Clarke, 1998). Target suitability is assessed based on four criteria: value, inertia, physical visibility, and accessibility, all of which are considered from the offender’s viewpoint (Cohen and Felson, 1979; Felson and Clarke, 1998). Some targets may offer more tempting crime opportunities due to the availability and level of these four elements (Felson and Clarke, 1998).

### *3.3.2 Value*

Value refers to “the material or symbolic desirability of persons or property targets to potential offenders,” and it may be an economic benefit or enjoyment that the offender acquires (Cohen et al., 1981). In our study, targets are the GVT members who are cyberbullied by one or more teammates. Thus, targets themselves could not possess a

direct value. However, cyberbullies in a GVT might acquire a value after they harass the target. Offenders could aim at gaining more reputation with respect to their work performance or a heightened role or a better position due to their acts by attacking a teammate who they perceive as threatening their promotion in competitive work life. Hence, they could achieve a higher performance, which would lead to material or psychological rewards for cyberbullies eventually. For instance, cyberbullying acts by a GVT member such as the hijacking of a teammate's computer identity or sending viruses intentionally to a teammate's e-mail address may help the offender access a piece of valuable information that may enable the offender to gain a competitive advantage in the team and organization (Jönsson et al., 2017). Cohen et al. (1981) differentiated ends of target attractiveness as instrumental and expressive. Instrumental ends imply an act that is committed as a means of acquiring something one desires. Expressive ends refer to an act of attacking a person or stealing property as the only reward sought in doing so. Thrill-seeking and peer-group acceptance were given as examples by Cohen et al. (1981). Accordingly, being with peers can increase the situational potential for deviance by making deviance easier and rewarding (Osgood et al., 1996). In this regard, peer-group acceptance has symbolic rewards of enhanced status and reputation in that cyberbullies can exploit the benefits of being recognized by their peers as a brave, adventuresome, or tough friend. Therefore, GVT members may commit cyberbullying to prove themselves to their peers in particular in case of the availability of offline or online deviant peers at the workplace (Reyns et al., 2011).

Thus, we can propose as follows:

***PIa: The perceived value of a GVT member as a target would increase the opportunities to cyberbully, and therefore would lead to the victimization of the target.***

### *3.3.3 Inertia*

Inertia refers to how easily a target can be removed or overcome by the offender (Cohen et al., 1981). Inertia can be the weight or size or attached or locked features of a property inhibiting its illegal removal, or the physical capacity of persons to resist attack (Cohen and Felson, 1979; Wang et al., 2015). With regard to the inertia, Yar (2005) argued that the target becomes almost weightless in cyberspace, and therefore it is not possible to apply this element to cybercrimes. In contrast with Yar (2005), Leukfeldt (2014) contended that in case of information theft, extremely large databases might create inertia for offenders to access and download them. In parallel with this contention, Wang et al. (2015) included inertia as the strength of application controls against insider threats that can make it difficult for an internal perpetrator to steal data. However, inertia, as conceptualized by Wang et al. (2015), could fit better in their construct of protection mechanism, which is a digitally capable guardianship. In this regard, a target's entity as a human being makes the conceptualization of inertia more challenging in cybercrimes committed to harm an individual's physical and psychological integrity. However, as explained by Cohen and Felson (1979) and Cohen et al. (1981), inertia also includes the physical capacity of persons to resist attack. Therefore, in physical terms, a large and heavy person would be relatively difficult to assault, and accordingly, inertial resistance would have an opposite relationship with the suitability of the target (Yar, 2005).

In an online environment, individuals can enable and enhance their inertial resistance by setting passwords that are difficult to break as already being suggested by the systems generally, installing an antivirus program and keeping it up-to-date, adjusting their privacy settings in ESM or public social media websites more strictly to restrict the access to their private information including pictures, and becoming a computer-savvy. However, this kind of controls utilized to minimize the breach of intruders is considered within the guardianship construct (Choi, 2008; Bossler and Holt, 2009; Reyns et al., 2011; Holt and Bossler, 2013). Thus, in order not to cause any overlapping in the constructs of “inertia” and “capable guardianship,” we are not making any hypothesis about inertia.

#### *3.3.4 Visibility*

Visibility refers to the extent to which an offender knows that a target exists and knows about its whereabouts (Wang et al., 2015). Hinduja and Patchin (2008) reported that spending more time online and higher computer literacy are significant factors for victimization in cyberbullying. Similarly, spending more time in chatrooms increased the risk of online harassment victimization (Holt and Bossler, 2008). In a GVT, team members are visible all the time to each other, and they can be accessed at any time by means of the communication medium used by the GVT. However, outside these communication media through which team members collaborate, they may befriend each other on social networking websites such as Facebook. This increases the visibility of members who generally don't know each other in person could provide them opportunities to acquire private information that they can abuse. Within the work context,

high-performer members whose visibility is more than the rest of the team members on team communication and communication media may be perceived as a threat to some of the teammates, and this may motivate them to bully the high-performer targets. Since some of the team members may become stressed due to their lower performance as compared to high-performers, they may consider using cyberbullying methods against them to outperform in an unfair manner.

Thus, we can propose as follows:

***P1b: The visibility of a GVT member as a target would increase the opportunities to cyberbully, and therefore would lead to the victimization of the target.***

### *3.3.5 Accessibility*

Accessibility of a crime target addresses the ability of an offender to get to the target and then to get away from the scene of the crime (Wang et al., 2015). Wang et al. (2015) evaluated the accessibility of an application for an internal perpetrator within an organization as the degree of openness and ease of access to the functionality and the data of an application. Leukfeldt (2014) indicated that popular and commonly used operating systems and web browsers are attractive to motivated offenders since they are used by people at home, school, work, or anywhere else to access the online world. Therefore, offenders can abuse holes, gaps, or leaks in these systems, browsers, or any software program to attack a vast number of users at once, for instance, by infecting them with malware. This ensures higher accessibility to targets' private data stored in their computers. In a similar manner, offenders who pose as a legitimate institution or a reliable person/friend can commit phishing attempts by targeting large numbers of email

addresses owing to the easier accessibility opportunities to these addresses which are available on organization websites or by purchasing them illegally (Hutchings and Hayes, 2009; Soudijn and Zegers, 2012).

Although a target is visible to the offender, accessibility may not be easy for the offender. If the target has already had a more-than-basic knowledge of cyberbullying and how to avoid or prevent it, or if target's computer literacy is in a high level (Ngo and Paternoster, 2011), s/he may be more aware of risks that are directed by a bully team member (Leukfeldt, 2014; Williams et al., 2018). Thus, the accessibility of the target by the offender can be mitigated by applying technical and personal guardianships. With regard to the accessibility of a target by a cyberbully, different communication media may play different roles. Rather than using media that has already been agreed upon by the team or the organization such as e-mails, ESMs, or a cloud-based project management applications, cyberbullies may not limit themselves with available communication media utilized by the team. Cyberspace provides the bully with a shield named anonymity, which is the condition of being unidentified (Zhang and Leidner, 2018). Therefore, the cyberbully may use other media such as social networking websites (Facebook, Twitter, Instagram, Reddit, etc.), blogs, discussion forums and websites that are not related with the workplace to insult and humiliate the target, commenting about the work performance of the target in negative terms, spreading gossip or rumors about the target, and posting offensive photos and videos about the target (Jönsson et al., 2017). In this situation, tracing the identity of cyberbully may not be possible.

Thus, we can propose as follows:

***PIc: The accessibility of a GVT member as a target would increase the opportunities to cyberbully, and therefore would lead to the victimization of the target.***

### *3.3.6 Lack of Guardianship*

Besides target suitability elements, lack of guardianship is another element of the three necessary elements for a crime to occur (Figure 2), according to the RAT.

Guardianship concept implies that others who could be but not limited to, parents, teachers, friends, security guards, law enforcement officers, bystanders, protective tools, weapons, security cameras, locking systems, anti-virus programs, and targets' own skills depending on the situation are present who will discourage motivated offenders from acting upon criminal opportunities and potentially prevent the occurrence of a crime (Cohen and Felson, 1979; Cohen et al., 1981; Reyns et al., 2016). Lack of any of these guardians would increase the likelihood of the occurrence of a crime (Cohen and Felson, 1979). Guardianship in digital environments can be maintained depending on the type of cybercrime by user skills and computer literacy against malware victimization (Bossler and Holt, 2009; Holt and Bossler, 2013), antivirus programs, antispymware programs, and firewall programs against illegal or unwanted invasions of someone else's computer (Choi, 2008), private profile settings, profile trackers and supportive peers against cyberstalking victimization (Reyns et al., 2011), national cybersecurity strategy in country-level against online identity theft (Williams, 2015), and implementing data protection levels against insider threats (Wang et al., 2015).

Guardianship would also play an important role in GVTs to reduce or eliminate the risk of bullying. Leymann's (1996) work environment hypothesis, which is prevalent in workplace bullying research posits that factors in the broader organizational environment are significant enablers and facilitators of workplace bullying as compared to the individual-level factors. Four factors that are prominent in the probability of harassment at work were delineated by Leymann (1996) as deficiencies in work design, deficiencies in leadership behavior, the socially-exposed position of the victim, and low moral standard in the department. These factors, in combination with a lack of organizational policies regarding handling conflict situations, may develop a conflict into the workplace bullying process (Leymann, 1990). Forssell (2018) identified predictors of cyberbullying as social organizational climate, social support, influence over work, and gender and formal position in the workplace. Gardner and Rasmussen (2018) found that both forms of bullying, that are cyberbullying and face-to-face bullying, were associated with poorer work environments; therefore, a focus on organizational systems and processes are necessary. In line with these studies, we can explicate capable guardians in GVTs as a team leader who is experienced in leading globally dispersed teams and who possess interpersonal and trust-building skills, a well-established organizational policy that regulates the breach of any kind of workplace mistreatment, a healthy organizational culture that promotes fair treatment of employees, and supportive online and offline peers including supervisors and GVT members.

There is a consensus among scholars that virtual teams are more difficult to lead than face-to-face teams due to the lack of face-to-face contact, geographical dispersion,



and asynchronous nature of communication (Hoch and Kozlowski, 2014). Due to the diversity in the team composition (e.g., experience, gender, nationality, etc.) and increased possibility of misunderstandings that may result from communication delays, language barriers and the lack of physical interpersonal cues (e.g., warmth, attentiveness, trust, etc.) in a computer-mediated environment, conflict may arise in GVTs (Axtell et al., 2004; Ayoko et al., 2012). These conflicts may escalate beyond interpersonal conflict and become cyberbullying acts (Zapf and Gross, 2001; Einarsen et al., 2011). Poor conflict management combined with escalating conflict management styles (e.g., by forcing a solution) can increase the chance of bullying (Baillien et al., 2009). Therefore, effective leadership is required to manage the conflict. Leadership may emerge as a result of an official assignment or an unofficial institution of spontaneous leadership (Leymann, 1996). Leaders are expected to possess various roles to be effective such as a director role (engaging in goal setting, clarifying members' role, priorities, and directions, and establishing clear expectations), a coordinator role (maintaining structure, overseeing that rules and standards are met, anticipating and solving problems, and avoiding crises), a monitoring role (being in control of works, collecting and distributing information, checking on performance, and providing a sense of continuity and stability), a facilitator role (encouraging the expression of opinions and participative decision-making, surfacing key differences among team members to resolve them, and seeking consensus), and a mentor role (being aware of individual needs, listening actively, being fair, supporting legitimate requests, and showing empathy and concern in dealing with members) (Denison et al., 1995; Kayworth and Leidner, 2002). Highly effective virtual team leaders

who can act in a mentoring role and exhibit a high degree of empathy toward other team members were found to be extremely effective at providing regular, detailed, and prompt communication with their peers and in articulating role relationships and responsibilities among members (Kayworth and Leidner, 2002). Leader's role in providing an appropriate environment for the generation of a fruitful outcome stands out when the impact of both motivation and team environment, as well as enjoyment, reciprocal benefits and trust, are important in knowledge sharing attitudes in loosely-linked, globally dispersed virtual team environments (Killingsworth et al., 2016). Therefore, in order to create and sustain a productive working environment where employees have a high level of job satisfaction, an effective leader can act as a capable guardian in intervening in the interpersonal conflicts and preventing them from escalating to workplace cyberbullying. A leader's role is also considered essential in the selection of communication medium, which will be used for virtual meetings in that, leaders should consider the objective of the group and the familiarity of its members with a particular technology (Bull Schaefer and Erskine, 2012).

Deployment of new technologies in the workplace, the requirement of continuous updating due to the debugging process by application developers, and the use of cloud-based applications present opportunities for new routine activities, and therefore bring about security vulnerabilities for organizations. Besides, routine activities such as the use of social media and e-retailer websites at the workplace, remote access to organization intranet, and use of employees' own devices (Bring Your Own Device) may have negative effects that expose organizational IS applications and confidential data to insider

and external threats (Williams et al., 2018). Especially, GVT members often use their own devices that may increase the vulnerability of organizational data. In order to maintain organizational guardianship against insider cyber victimization, Williams et al. (2018) enumerated guardianship practices as the assignment of a manager or board member specifically responsible for managing information security in the company and worrying about and awareness in the risk of insider cyber victimization. These demonstrate the necessity of organizational governance and policies against any kind of breach that may put the organization in jeopardy. Besides their organizational impact, above-mentioned routine activities also pose risk for employees, and may cause negative consequences both for GVTs and their members. Therefore, an organizational policy about workplace incivility in general, and cyberbullying in particular, can serve as a capable guardian that could discourage potential cyberbullies since they had already been informed by this written policy of the consequences of these negative acts if they commit. However, it is of high importance that this policy must be visible and accessible to all employees, and top management and supervisors should show their commitment to the implementation of this policy.

Three organizational context factors, that are power differences, organizational culture, and access to social capital can affect the occurrence of victimization at workplace (Aquino and Lamertz, 2004). Among these three factors, organizational culture is composed of formal and informal norms (Fey and Denison, 2003), and it may have negative impact on the establishment of institutionalized victimization in an organization. The likelihood of institutionalized victimization may increase when the

organizational culture has strong norms supporting the belief that punishments, aggression, and the exercise of coercive power are functional for motivating people, and also when it supports incivility and rude behavior (Brodsky, 1976; Aquino and Lamertz, 2004). That kind of toxic workplace culture suggests that bullying is allowed within the organization and the teams since it is not punished (Baillien et al., 2009). Bullying becomes prevalent in work environments where employees and managers feel that they have the support from upper management to engage in such behavior (Einarsen, 1999). Salin (2003) reported a positive correlation between a high degree of organizational politics and bullying among business professionals. Therefore, a toxic organizational culture might act as a facilitator of workplace bullying, hence lack of organizational culture that stands up against any kind of workplace mistreatment creates an opportunity for offenders.

Supportive team members and peers can serve as a capable guardian in discouraging and preventing cyberbullying acts. Supportive online and offline peers would have an opposite effect, in that, their support while individual is being bullied or after s/he is bullied would decrease the likelihood and ultimately consequences of cyberbullying. Low social support is a risk factor that can trigger bullying behavior (Forsell, 2018). Social support can come from managers and supervisors as part of a hierarchical relationship and pursuant to the available organizational policies regulating the ground rules of interpersonal relationships. Social support from superiors and colleagues can influence the social organizational climate, and it can reduce the impact of cyberbullying on personal outcomes such as health, intention to quit, well-being and

work engagement (Muhonen et al., 2017). Social support from superiors in case of both face-to-face bullying and cyberbullying was found to have a stronger impact as compared to the colleagues (Muhonen et al., 2017). In contrast with supportive peers, deviant peers could act as an essential factor that encourages an individual to commit cybercrime (Holt and Bossler, 2008; Reyns et al., 2011). Besides, they could be the cause of the victimization by exposing the target to motivated offenders or by perpetuating the bullying behavior themselves. Thus, existence of deviant peers can increase the likelihood of victimization.

In conclusion, capable guardians in GVTs can be explicated as a team leader who is experienced in leading globally dispersed teams and who possess interpersonal and trust-building skills, a well-established organizational policy that regulates the breach of any kind of workplace mistreatment, a healthy organizational culture that promotes fair treatment of employees, and supportive online and offline peers including supervisors and GVT members. Thus, we can propose the impact of the lack of capable guardianship in a GVT as follows:

***P1d: Lack of capable guardianship would increase the opportunities to cyberbully, and therefore would lead to the victimization of the target.***

### **3.4 Communication Medium Related Characteristics**

Virtual teams differ from collocated physical teams, in that they operate almost completely on digital platforms (Jarvenpaa & Leidner, 1999; Sarker et al., 2011). GVT members may use a wide range of media such as texting, emails, Enterprise Social Media (EMS) applications (e.g., Microsoft Yammer, Jive, proprietary platforms) which

integrates various collaboration tools including employee profiles, searching feature to find experts inside the organization, chat with a coworker or within a specialized group, video meetings, file storage, discussion forums and blogs, teleconferencing programs (e.g., WebEx, Zoom, Skype), chat applications enabling synchronous or asynchronous exchange of texts as well as pictures, videos and files (e.g., WhatsApp, Viber, Telegram), shared editable documents (e.g., Google docs), and proprietary or cloud-based project management software programs (e.g., MS Project, Basecamp, Slack). One contemporary advantage of above-mentioned applications is their accessibility not only on office desktops, but also via laptop computers, smart phones and tablets from anywhere worldwide. Since GVT members are always online in order to perform their tasks, and there are not any other mechanisms to communicate apart from electronic means, our research would not indicate online routine activities as a separate construct. Furthermore, online routine activities have been embedded within the fundamental concepts of value, inertia, visibility and accessibility (four elements of target suitability), and capable guardianship.

Communication media themselves are the sine qua non communication and collaboration instruments in virtual teams. While they are the enablers of an effective collaboration among members and their utilization determines whether the project would be successful by generating the projected deliverables, at the same time and adversely, characteristics of computer mediated communication play an important role in the creation of opportunities to cyberbully. As discussed above in section 3.1.6, some of the applications such as antivirus programs, antispymware programs, firewall programs and

online security measures (e.g., private profile settings, data protection levels against intruders, etc.) embedded in online platforms serve as capable guardians in the mitigation or prevention of cybercrimes and their consequences. Apart from their role as capable guardians, communication medium characteristics influence the opportunities for offenders to cyberbully GVT members. Each medium possesses own features that may facilitate or hinder the effective communication. Accordingly, media richness theory posits that media vary in their capacity to convey information cues, and hence task performance is improved when task requirements are matched to a medium's ability to convey information (Daft et al., 1987; Dennis and Valacich, 1999). A rich medium facilitates insight and rapid understanding, and it is preferred by managers for ambiguous communications owing to their functionality in conveying the messages. According to the media richness theory, the richness of each medium depends on a mix of four criteria which are instant feedback, multiple cues (e.g., physical presence, voice inflection, body gestures, words, numbers, graphic symbols), language variety (the ability to convey natural language rather than just numeric information), and personal focus (infusion of personal feelings and emotions). Therefore, face-to-face communication is considered the richest medium through which rapid mutual feedback, simultaneous communication of multiple cues (regulation, modification and control of communication exchange by means of head nods, smiles, eye contact, tone of voice and other nonverbal behavior), use of high variety natural language and conveyance of emotion are possible. In this regard, among online applications, teleconferencing programs could be at the top in the hierarchy of media richness where face-to-face communication was evaluated as the

richest by Daft et al. (1987). However, members of globally distributed teams cannot be available in an agreed upon time due to the wide gaps of time zones, and therefore these applications cannot not be always appropriate to use. Therefore, GVTs, similar to their physical counterparts, utilize various online communication and collaboration tools at the same time or during different phases of the project cycle. Rich media could provide communication along multiple channels simultaneously, and they can carry more complex, equivocal or uncertain messages more effectively (Straub and Karahanna, 1998). Complexity of the messages conveyed across GVTs where organizational structure and diversity is also complicated would require the meticulous selection of media (Daft et al., 1987; Maznevski and Chudoba, 2000).

In their critique of Daft et al.'s media richness theory, Dennis and Valacich (1999) suggested five media characteristics that can affect communication. First two of them are the same with characteristics proposed by media richness theory, that are, immediacy of feedback, and symbol variety which indicates the number of ways in which information can be communicated and consists of multiplicity of cues and language variety. Besides, they indicated three more characteristics as parallelism (the number of simultaneous conversations that can exist effectively), rehearsability (the extent to which the media enables the sender to rehearse or fine tune the message before sending), and reprocessability (the extent to which a message can be reexamined or processed again within the context of the communication event). Dennis and Valacich (1999) asserted that it is not possible to rank the media per their richness level because media possess many capabilities, each of which may be important in a given situation. Therefore, richest



medium can be assessed by taking into consideration a set of capabilities necessitated by the situation that varies depending on individuals and task, and the social context where both interact. Similarly, Carlson and Zmud (1999), with their channel expansion theory that was built on media richness theory, demonstrated that users' experience with the medium is another function of the objective characteristics of the medium in addition to the richness of that medium. Besides the richness of information conveyed, another issue that concerns VTs are the synchronicity of activities and communications related to them. Media synchronicity was defined by Dennis and Valacich (1999) as "the extent to which individuals work together on the same activity at the same time" (p.5). In general, while low media synchronicity is preferred for conveyance (exchange of information, followed by deliberation on its meaning), high synchronicity is preferred for convergence (the development of shared meaning for information).

Among those characteristics, cyberbullying could be affected mostly by immediacy of feedback, symbol variety and synchronicity. Most of the communication media cannot provide an immediacy of feedback to the sender if the communication is not performed synchronously. The cyberbully may not be totally unaware of or less aware of the consequences caused by her/his online actions because s/he may not receive an immediate and direct feedback from the target or witnesses (Slonje and Smith, 2008). Indeed, lack of immediate feedback would leave very small room for empathy or remorse for the perpetrator.

As regards the symbol variety, communication media could lead to different interpretations by the members due to the lack of social cues such as body language and

vocal tone in the written text (Kowalski et al., 2018). Lack of communication cues that individuals use to convey trust, warmth, attentiveness, and other interpersonal affections could be eliminated (Jarvenpaa and Leidner, 1999). Besides, delayed response time due to the asynchronous communication which are often linked to the spatial and temporal distance among members may lead totally different interpretations from what the sender intended to mean. Use of more-than-usual capitalized letters and exclamation marks, and abundance of punctuation errors might also modify the content and meaning of the text. In general, media richness, as a whole, was found to have a direct effect on fear of future harassment, that is, the richer the harassing e-mail, the more fear was reported (Ford, 2013). Therefore, a harassing message rich in symbol variety would enhance the negative interpretation of message content and would increase the likelihood of victimization.

One of the features of cyberbullying which separate it from the traditional bullying is anonymity. Although it is almost impossible in applications under the control of organizations and teams such as ESM, project software programs and corporate e-mails, and where anonymity is not allowed, targets may not recognize the perpetrator(s) in public applications such as social networking sites, blogs, personal websites and discussion forums, unless perpetrators identify themselves or their IPs can be traced (Hazelwood & Koon-Magnin, 2013, Forssell, 2016). If the target is accessible through the web applications which are outside the corporate supervision or property, perpetrators can find the opportunity to cyberbully the targets by hiding their true identity deliberately with temporary or fake accounts. Therefore, cyberbullying behaviors committed by coworkers anonymously would not allow targets or personal guardians to identify the

perpetrators. However, communication via applications where anonymity is not possible is not totally immune to the occurrence of cyberbullying behaviors. E-mails as one of the most used media in businesses still encapsulates elements of faceless communication that can decrease the perpetrator's awareness of the victim's emotional reactions (Kowalski et al., 2014; Forssell, 2016). Although a GVT member is identified directly and effortlessly in online team communications, online disinhibition effect which makes people say and do things in cyberspace that they wouldn't say and do in face-to-face world can cause a GVT member to feel less restrained and thus express her/himself more openly (Suler, 2004). An Internet user may easily forget or ignore appropriate norms in an online interaction with people, and this may cause an antisocial effect that contributes to flaming which refers to hostile, aggressive, and inflammatory online remarks (Bae, 2016). Furthermore, the geographic distance and the inability to see the responses of the target make the perpetrators less aware of the consequences of their cyberbullying behavior. The team member may lack empathy for the target since s/he does not see the target's facial and bodily responses (Slonje & Smith, 2008). Zhang and Leidner (2018) found in their study of workplace bullying behaviors in the cyber world that individuals' perceptions of invisibility (defined in their paper as the situation when the ability of individuals to read standard social cues such as facial expression, vocal tone, and body language is inhibited) and asynchrony are strong positive moderators in horizontal bullying through ESM and downward bullying through email.

Thus, we can propose the impact of communication medium related characteristics on opportunities to cyberbully in a GVT, in general and depending on each characteristic, as follows:

***P2: Communication medium related characteristics, lack of immediacy of feedback, bullying messages rich in symbol variety and online disinhibition effect, would increase the opportunities to cyberbully in GVTs.***

### **3.5 Opportunities and Cyberbullying victimization**

Aquino and Lamertz (2004) conceptualized victimization as “an employee’s perception of having been the target, either momentarily or over time, of emotionally, psychologically, or physically injurious actions by another organizational member with whom the target has an ongoing relationship” (p.1023). These acts perpetrated by the offender can occur when opportunities arise. Opportunities become available for motivated offenders in the presence of target suitability elements that are value, visibility and accessibility, and lack of guardianship. Besides, the theoretical framework included ICT-related characteristics as another construct affecting the opportunities to cyberbully directly. Combined, they all create more opportunities for a motivated offender (cyberbully). Opportunities would lead in many cases for the motivated offender to engage in cyberbullying behavior due to the realization of exposure, proximity and attractiveness of the target (Cohen et al., 1981). Offenders, who could be supervisors, colleagues, or even subordinates, when equipped with increased opportunities could commit a variety of negative online behaviors that are directly or indirectly inflicted on a target coworker or a group of coworkers using electronic forms of communication

(Privitera and Campbell, 2009; Zhang and Leidner, 2018). The negative bullying acts may include: attacking the target's personality; ignoring, excluding or discriminating them in work-related or social contexts; disclosing their personal information; or criticizing their work performance unfairly and negatively (Cassidy et al., 2014; D'Cruz and Noronha, 2013; Forssell, 2016; Jönsson et al., 2017; Slonje and Smith, 2008).

In this study, as we defined, GVT cyberbullying is the use of text, images, or videos that contain inappropriate, vulgar, offensive, hostile, negative, derogatory, or false comments using electronic forms of contact via ICTs by an individual or a group. These negative acts are committed with an intent to harm or hurt to humiliate, defame, threaten, or stalk a coworker or a group of coworkers who are members of a GVT. Cyberbullies in GVTs attack target's personalities; ignore, exclude or discriminate against them in work-related or social contexts; disclose their personal information; or criticize their work performance unfairly and negatively (Slonje and Smith, 2008; D'Cruz and Noronha, 2013; Cassidy et al., 2014; Forssell, 2016; Jönsson et al., 2017). Cyberbullying behaviors against GVT members may occur repeatedly by the perpetrators. However, permanence of the offensive information posted online due to the convenience of saving, copying and pasting, sharing and also the breadth of audience worldwide could create a different type of repetitiveness not only performed by the perpetrator but by everyone involved in spreading the content (Slonje and Smith, 2008; Forssell, 2016). A GVT member can also cyberbully another member regardless of physical power imbalance. The perpetrators in GVTs may find themselves in a more powerful position when they have better computer skills, verbally more fluent, and outnumbered with more perpetrators or more peer

support against the target, and/or when targets lack confidence or self-esteem, lack friends or social support, and have low social status in their peer groups (Smith et al., 2012).

Our initial analysis of three cyberbullying measures by Jönsson et al. (2017, Cyberbullying Questionnaire – CBQ), Farley et al. (2016, Workplace Cyberbullying Measure – WCM) and Privitera and Campbell (2009, adaptation of Negative Acts Questionnaire-Revised for bullying by e-mail, SMS, or telephone), and cyber incivility measures by Lim and Teo (2009) are detailed in Appendix 2. Cyberbullying acts in a GVT have been categorized primarily as (1) target ignored by teammates, (2) rude messages sent to the target, (3) aggressively worded messages sent to the target, (4) target excluded from work and/or social environments, (5) unreasonable work demands from and orders to the target, (6) criticism of work performance of the target, (7) attacks against personality of the target, (8) security breaches against target’s computer and accounts, and (9) false statements made and spread about the target. Besides these nine preliminary categories, cyber sexual harassment measures (Fitzgerald et al, 1997; Ritter, 2014; Brody and Vangelisti, 2017) will also be examined in Study 1 and 2 which have been detailed in the “IV. Methodology” section. These high-level cyberbullying categories will be refined, revised and detailed after the completion of Study 1 and 2.

The more the offenders attack targets with various acts of cyberbullying, the higher will be cyberbullying victimization (Forsell, 2016; Slonje and Smith, 2008). Thus, we propose as follows:

***P3: Opportunities to cyberbully will have a positive relationship with cyberbullying victimization.***

### **3.6 Virtual Team Development Stages**

Although virtual teams may be composed of many people, they are generally small groups or subgroups of larger groups. Citing Lepsinger and DeRosa (2010), Ferrazzi (2014) indicated that the worst VT performers had thirteen members or more while the minimum number for a VT to perform effectively was specified as five. As discussed in “Development of Virtual Teams” section, small group development models have been developed since 1950s. According to Tuckman (1965), small groups go through four stages of development which are forming, storming, norming and performing. As a result of literature review of fifty-five articles examining the stages of group development over time in therapy-group studies, T-group (human relations training group) studies, and natural and laboratory-group studies, Tuckman (1965) proposed a model of developmental stages for group settings over time. In respect to the group structure, he labeled these stages as (1) testing and dependence, (2) intragroup conflict, (3) development of group cohesion, and (4) functional role relatedness. Accordingly, he labeled the stages of task activity as (1) orientation to task, (2) emotional response to task demands, (3) open exchange of relevant interpretations, and (4) emergence of solutions. An essential correspondence between the perspectives of group structure and task activity caused Tuckman to summarize the group stages as “forming,” “storming,” “norming,” and “performing.” These four stages covered both group interpersonal and task activities.

Tuckman and Jensen (1977) added a fifth stage as adjourning after they reviewed twenty-two studies.

Our model adopts primarily the stages in human relations training group and natural group settings in Tuckman's model. Training groups are the groups in which task is to help individuals interact with each other in a more productive and less defensive manner. The goal of these groups is to enhance interpersonal sensitivity of participants. Tuckman's sample training groups were composed of students or corporation executives, and one trainer or leader. Natural groups are the groups that perform some social or professional functions over which the researcher has no control. The task of members in these groups are job-oriented, thus they don't come together for self-improvement as is in therapy or training groups. In these groups, there is an appointed or emergent leadership. Tuckman's examples for this kind of groups were presidential advisory councils and industrial groups.

Based on Tuckman's model, forming stage, the initial stage of small group development, is characterized with orientation to the group setting, testing the boundaries of interpersonal and task behaviors of other members, and dependency relationship with the leader. Storming stage following the forming stage is characterized by conflict and polarization around interpersonal issues, with concomitant emotional responding in the task sphere. These behaviors with hidden agendas and prejudices serve as resistance to group influence and task requirements. In the third stage, norming, resistance to authority is overcome, in-group feeling, and cohesiveness develop, new standards evolve, and new roles are adopted. In the performing stage, group energy is channeled into the task after



the structural issues are resolved and the structure becomes supportive of task performance. The last stage, adjourning, indicates the completion of the project where groups disband, and team members are reassigned to other projects or tasks.

Tuckman's (1965) small group development was adopted by Ayoko et al. (2012) to investigate the management of conflict and emotions for performance in virtual teams, and Johnson et al. (2002) examined team development and group processes of virtual learning teams and concluded that Tuckman's group development model described better than other theoretical models. Johnson et al. (2002) concluded that Tuckman's model is valid for virtual learning teams with second stage "storming" missing due to the short amount of time (about two weeks per assignment) to accomplish assignments. This limited time in student groups led to the rapid movement between stages, thus students followed forming, norming and performing respectively. However, each stage contained conflict resolution.

Ayoko et al. (2012) utilized this model in their study to develop a typology of conflict and emotions in virtual teams. They examined virtual teams in relation to the conflicts which emerge, develop, and are managed through four stages of Tuckman's developmental model. In forming stage where initial interactions among members occur, negative emotions were communicated to express frustration with the task and the technology. But they were not necessarily destructive and addressed mostly a healthy communication of emotions that helped the team identify the sources of problems. Venting of members' frustrations allowed them to realize that the team had significant challenges and important gaps in the understanding of the goals, process and technology

of the team project. This recognition of gaps activated the efforts to share information and work to overcome the problems and to create a shared vision of the outcome of the project. Although conflict and emotional behaviors can be observed in all stages, level, severity, and consequences of them vary throughout the project.

In storming stage, conflict and emotional behaviors increased. However, rather than the increase, its interpersonal and destructive nature were conspicuous in these behaviors' damaging effect on members and team. Teams experienced a substantial amount of cognitive and affective conflict accompanied with negative emotions. These destructive personal attacks had a higher probability to escalate into cycles of new attacks and retaliation. Teams attempted to intervene in these damaging interactions by reactively setting interaction norms. Some team members tried to prevent further interactions by requesting feedback, seeking a confirmation of common understanding from other members, and providing positive reinforcement. While communication of frustration was aimed at the situation and the task in the first stage, negative emotional communication crossed into the more destructive interpersonal attacks. In order to manage the conflicts, some teams adopted the strategy of feedback seeking behavior that elicit clarification and suggestions from team members, which in turn, prompted additional explanation and elaboration as an effective means of managing conflict. In accordance with Ayoko et al.'s findings in storming stage, we predict that cyberbullying behaviors would peak in this stage.

Following the second stage, norming stage witnessed the focus on management of conflict and emotional behaviors in GVTs. GVT members focused to overcome their

conflict and negative emotions to complete the tasks assigned to them. Teams attempted to engage in reconciliation, and team members who had previously engaged in interpersonal conflict made attempts to make up with the aggrieved team members. Accordingly, information-sharing increased, culminating in an increase in mutual understanding. Teams moved away from interpersonal attacks and affective conflicts. Team members engaged in mediation as a way of resolving difficult behaviors. Apologies, explanations and third-party mediation were used to make progress and to build an effective working rapport in the GVT.

The performing stage was characterized with stabilizing interactions and developing agreement and positive emotions. Teams had to complete the project as the deadlines were approaching. Therefore, they combined their efforts and fostered positive interactions. These led to a significant increase in task-focused and information clarification exchanges. Emoticons (pictures or symbols representing emotions) in online chats and discussion forums were frequently used as substitutes for the nonverbal emotional behaviors which are normally common in face-to-face interactions and absent in virtual interactions.

In Ayoko et al.'s (2012) study, based on discussion forum duration in days spent by 8 virtual student teams in total, 6 teams spent 2-4 days in the forming stage, 6 teams (not necessarily same six teams in the forming stage) spent 1-4 days in the storming stage while one team could not move to this stage and following stages, 5 teams spent 1-5 days in norming stage while three teams skipped this stage, and eventually six teams spent 1-4

days in performing stage. The highest score was taken by the team which spent 17 days in performing stage out of 26 days.

Although these classic stages in group development may not be apparent for all groups, and not all groups may follow them, they would be useful for predicting team performance (Mannix and Jehn, 2004) as well as conflicts and harassment cases within an organized framework. Besides, not all the virtual teams could experience all stages and they may spend different times in stages (Ayoko et al., 2012). Some teams may also face challenges in the transition process from one stage to another, such as moving toward the norming stage from the storming stage. Nevertheless, all teams can find themselves in the last stage while some of them would spend substantially longer times that could lead them to a higher achievement rating in the end. Johnson et al. (2002) proposed an iterative group development model based on Tuckman's model. In their model based on student virtual learning teams, there was no evidence of storming stage for all student teams due to rapid movement between each stage given the limited time in accomplishing assignments. Thus, teams moved along forming, norming, and performing stages, and they resolved the conflict when it arose among team members. After the conflict was resolved, teams continued the process of forming, norming, and performing.

Tuckman and Jensen (1977) added a fifth stage as adjourning in line with the separation issue within the life cycle approach. However, this stage was discussed mainly as a milestone that indicates the termination of a project or tasks and disbanding of the groups or teams. In this regard, we consider this stage as only a milestone that implies the end of a project in which GVT is involved.

Besides Tuckman's developmental model, we also incorporate Sarker and Sahay's (2003) virtual team development model owing to its unique structure grounded on the virtual teams, not traditional face-to-face teams. Sarker and Sahay (2003) developed a virtual team development model based on a qualitative study of 12 student teams composed of two sides for each team, one in the US and the other in Canada. They conducted an inductively grounded interpretive case study, and developed a model based on their empirical observations. With the interaction of macro level (virtual team structure composed of production and social structures), micro level (communicative actions that are turn-taking and dealing with trouble) and modalities of structuration (power, norms, and meanings) in each stage, teams followed four phases, not necessarily in a linear sequence all the time. In accordance with the structuration theory, a simultaneous interaction among the macro level, the micro level, and the modalities in the structural framework were considered. In the macro level, virtual team structure is composed of production structure (task focus and task ability) and social structure (nature of virtual presence, social responsiveness, nature of goals, and nature of identities). In the micro level, communicative actions consist of turn-taking and dealing with trouble. Turn-taking allows members to participate in an interactional exchange system by utilizing contents of the communication transactions, artifacts and documents, and communication technologies. Turn-taking consists of definition and negotiation of situation, impression management, exchanging artifacts, and use of referential symbols (requests, invitations, instructions, orders, and/or commands that aim to coordinate activities) and evocative symbols (symbols that reflect socio-emotional content such as

shared jokes that allow members to emote in unison and develop social solidarity through an interactional exchange). Dealing with trouble includes problem avoidance and problem repair. Between both levels, modalities of structuration are located, and they constitute power, norms and meanings. Sarker and Sahay also referred to Gersick's (1988) model by emphasizing Gersick's critique of gradual and linear development without any iterative process through which all groups follow the same historical path, and of the lack of change mechanisms as well as the role of a group's environment.

Their model highlighted mainly the interaction between two student groups in two different countries rather than the interaction among individuals in a local group. The communicative actions were primarily between two local groups in a student team. With the interaction of macro level, micro level and modalities in each stage, teams followed four phases, not in a linear sequence all the time. Sarker and Sahay's (2003) named their developmental stages as initiation, exploration, collaboration and culmination. The initiation stage, which is similar to the forming stage of Tuckman (1965), demonstrated a social structure with limited virtual presence, unidirectional social responsiveness and individualistic nature of goals, and predominantly individual identities of members. The production structure in this stage consisted of low task focus primarily based on artifacts (course syllabus in student teams) created by coordinators, and low task ability related to the communication competence and task-related skills. Within the context of turn-taking as a communicative action in the micro level, coordinators defined project landscape, members tried to establish technical credibility and used symbols (icons), members didn't exchange any artifacts since coordinators provided project details, and they had a

minimal use of referential / evocative symbols. Problem avoidance and repair are generally conducted by appealing to coordinators to intervene. In this stage, in terms of modalities of structure, project-related uncertainty was high, there was a lack of knowledge of technology, and power was imposed primarily by the coordinator who has the institutional position. Norms were in a primitive level, that is, there were few pre-existing views on how to participate effectively in virtual collaboration and individual members' own beliefs about the use of different IT was based on their previous experience. Transition from initiation to exploration stage was aided by communicative actions such as wooing, reference to tasks, roles, norms, and calling upon higher authorities.

After the initiation phase which took generally maximum two weeks for the student teams, each team moved on the exploration phase where some of the teams spent more than half of the 14-week project time. Virtual presence increased but it was still intermittent with few accepted norms on the intensity, frequency, or length of presence on different media and on requirements of participation expected. Lack of social integration persisted which hindered effective cooperation. Social responsiveness was bidirectional, nature of goals reflected the local concerns rather than individual concerns, and local affiliation based on differentiated identities was developed and solidified. Task focus increased as communication occurred on the project requirements, and task ability and communication skills improved. Turn-taking started to intensify in this stage. Members, in their local frames, started to redefine project unilaterally, and both sides attempted to portray an image of being professional and credible. There were not still any

shared norms on ICTs to be used. Members started to use referential symbols with some negative evocative symbols such as sarcasm and berating in jest. Some teams used humor to express collegiality and break the ice. Some also used repair strategies by thanking remote members for their patience, shifting attention to technological failures, or blaming coordinators. Coordinators' institutional position to reward and punish became apparent in this stage for members who experience increased conflict. In teams where communication and interaction level are relatively higher, the role of the coordinators started to be redefined from being primarily directive to being facilitator who aids in information processing. With respect to the meaning, understanding of project-related concepts, requirements and structure emerged. Taking an interest in remote members' goals and constraints, using evocative symbols, rallying around external deadlines and use of media-rich technologies ensured the transition from exploration to the collaboration stage.

Seven out of 12 student teams in Sarker and Sahay's (2003) study made a transition to the collaboration stage which was characterized with a significant level of virtual presence, where most members were uniformly co-present virtually as per established norms. Mutuality in social responsiveness contributed to the clarification and stabilization of norms regarding time such as issues of dealing with time-zone differences. Besides, team members of local team members started to show more sensitivity to the schedules of the remote team members. Teams agreed on shared goals and supported remote members' specific goals. Team-level integrative identities emerged regardless of physical location. Substantive discussions and precise responses reflected



high-level task focus in this stage. Increasing experience as well as delegation of responsibilities based on competence and interest exhibited the high task ability. Turn-taking included joint negotiations to clarify deadlines and technical parameters, humor and verve accompanied competences, and evocative symbols were used frequently with referential symbols. These helped teams to engage in a fun and productive work environment. While the ideas and efforts were appreciated explicitly by other members, disagreements were tried to resolve through polite and reasoned argumentation which refers to the strategic mitigation methods. Coordinators needed to intervene in isolated cases to defuse potentially negative situations, and apologies and humor were used by team members routinely to clear up the problems. Coordinators' institutional position to reward and punish was still present while became subtle. Existing mutuality among team members were perceived as taken-for-granted shared rules of virtual presence maintenance, technology-use, turn-taking, etc. Shared frame of reference was developed regarding the project. Sense of belonging to a whole prevailed. It was observed that most effective teams achieved their actual work in the collaboration stage.

Some of the teams couldn't move on to the last stage from the collaboration stage and reverted back to the exploration stage or oscillated between two stages since they couldn't develop social solidarity, strategic mitigation efforts were insufficient, and eventually they couldn't deal effectively with trouble such as silence of other local team members and missed deadlines. In order to stay and continue effectively in the collaboration stage and proceed with the last stage, teams should utilize the problem repair and avoidance strategies such as timely intervention of project coordinators /

leaders, sincere apologies from offender, conscious use of evocative symbols, appreciating and incorporating ideas from other team members and handling substantive disagreements with other team members with care and sensitivity. Spending significant time in collaboration stage was found to be associated with effective functioning and superior product delivery. After teams met the requirements of final deadlines, they can move on to the last stage, culmination and dissolution phase.

Although some teams moved on to the collaboration stage after the exploration, some couldn't make their way to the collaboration and instead they skipped this phase and found themselves in the final stage of culmination and dissolution. Sarker and Sahay's five student teams made a direct transition by skipping the collaboration stage. These teams were identified as disorganized and desperate, and they exhibited very weak production and social structures, and reflected poor communication competence, lack of integrative identity and shared social goals, intermittent virtual presence, and a primary focus on local interests.

The last stage, culmination and dissolution phase, represented the physical closure of the project with team members presenting final project deliverables to the coordinators and clients, and the subsequent disbanding of the virtual teams. Virtual presence remained uniformly high until the end of project for effective teams. Their members remained mutually social responsive, even after the project ends. They could successfully present their product reflecting the joint effort. Team-level integrative identities persisted in these teams. Task focus peaked in almost every team. High-level task ability was evident in effective teams while it was marginal for ineffective teams. Effective teams

agreed on details in the final product, attempted to impress coordinators and other teams with the successful completion, and a rapid exchange of documents occurred to meet project deadlines. Evocative symbols were used to help establish an enduring social relationship and referential symbols were used extensively to coordinate project completion. Project completion and presentation of its outcomes were planned carefully. Intense exchange of referential symbols in combination with evocative symbols were utilized for crisis management in this stage.

Tuckman’s (1965) and Sarker and Sahay’s (2003) models overlapped to some extent with regard to the developmental stages (Table 6). In our model, stages are named per Tuckman’s model as forming, storming, norming, and performing. Forming stage includes initiation stage of Sarker and Sahay, storming stage includes exploration stage of Sarker and Sahay, and norming and performing stages correspond with collaboration stage of Sarker and Sahay. Sarker and Sahay’s model’s distinctive advantage is that it was developed merely on virtual team development. Furthermore, their model consists of macro and micro structures, and communication modalities discussed from the perspective of GVT dynamics. Nevertheless, Tuckman’s (1965) model’s extensive utilization so far in small group development and project management research, and its operationalization in Ayoko et al.’s (2012) study regarding the conflict in VTs places it as a robust model.

Table 6. Overlapping Stages of Tuckman’s (1965) and Sarker and Sahay’s (2003) models

Tuckman’s (1965) Small Group Development Model	Sarker and Sahay’s (2003) Virtual Team Development Model
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Forming stage	Initiation stage
Storming stage	Exploration stage
Norming stage	Collaboration stage
Performing stage	
Adjourning stage	Culmination stage

Our theoretical model consists of first four stages of Tuckman's (1965) original model, and accordingly first three stages of Sarker and Sahay's (2003) model. Our model places the developmental stages of virtual teams as a moderator between independent construct, "opportunities to cyberbully" and mediating construct "cyberbullying victimization". As Ayoko et al. (2012) emphasized the differences in conflict levels at each stage, we can expect that stages would vary in terms of cyberbullying victimization levels. In parallel with Ayoko et al.'s findings, we expect the maximum cyberbullying victimization to start in storming stage. It is also expected that any cyberbullying victimization starting at any stage would not be confined only to that stage, but it would persist in the following stages even though teams revert back to a previous stage or advance to a farther stage. Since forming stage consists of initial interactions by team members to break the ice and clarify the tasks and responsibilities, negative emotions communicated by team members are generally limited with tasks and technology used (Ayoko et al., 2012). Accordingly, we expect a very low likelihood of cyberbullying in the forming stage.

Therefore, we can propose the moderating effect of virtual team development stages between the opportunities to cyberbully and cyberbullying victimization as follows:

*P4: Virtual team development stages moderate the association between the opportunities to cyberbully GVT members and victimization of these members as a target.*

*P4a: Minimum level of cyberbullying victimization would occur in the first stage, “forming”.*

*P4b: Maximum level of cyberbullying victimization would occur in the second stage, “storming.”*

### **3.7 Team Diversity**

Forming strong bonds among team members becomes more challenging when the team diversity increases (Jarvenpaa and Leidner, 1999). Cross-cultural computer-mediated communication could exacerbate this challenge. Nevertheless, the impact of diversity on the team performance has contradictory findings in the literature, in that, some studies found that diverse teams outperformed homogeneous teams owing to the benefits such as resource and schedule flexibility, access to and bringing specialized skills and diverse experiences together in a relatively short time, enhanced knowledge sharing and repository, and opportunities for accelerated problem solving while some found that homogeneous teams performed better by avoiding conflict and communication problems (Pinjani and Palvia, 2013; Alsharo et al., 2017; Olaisen & Revang, 2017). However, although heterogeneity may have positive effects on team performance, it may bring about conflicts due to the diversity elements such as demographic differences, personal characteristics, functional background, and cultural differences. Some field

studies suggested that diversity is associated with negative performance outcomes (Mazur, 2010). The relationship between diversity and performance can be complex, and different types of diversity may have distinctive effects (Pelled et al., 1999). Functional background differences are found to be a key source task conflict in workgroups, whereas emotional conflict is increased by dissimilarity in race and tenure (Pellard et al., 1999).

Diversity can be conceptualized from various perspectives. Pinjani and Palvia (2013) categorized diversity in three forms: (1) Surface-level diversity consists of demographic differences such as age, sex, race, and culture; (2) deep-level diversity includes diversity due to personal characteristics such as idiosyncratic attitudes, values, and preferences; and (3) functional diversity refers to diversity in team members' functional background. Our study will also operationalize these three diversity forms as a moderator of the relationship between opportunities to cyberbully and cyberbullying victimization. Since GVTs are culturally diverse and geographically dispersed teams (DeSanctis & Monge, 1999; Peters & Manz, 2007), cultural diversity should be taken into account separately, not inside the surface-level diversity. Cultural diversity can consist of racial, sexual, organizational, professional, and national heterogeneity (Schachaf, 2008). In our study, cultural diversity is defined as the heterogeneity of national cultures of team members (Schachaf, 2008). Although Hofstede's (1980, 2011) cultural dimensions are regarded as effective determinants of cultural differences between countries, six cultural dimensions which are power distance, uncertainty avoidance, individualism vs. collectivism, masculinity vs. femininity, long term vs. short term orientation, and indulgence vs. restraint overlook many cultural aspects such as race, ethnicity and

national cultural aspects. Thus, in this dissertation, cultural diversity was retained as the heterogeneity of national cultures of team members (Schachaf, 2008).

Therefore, we propose the moderating effect of GVT diversity between the opportunities to cyberbully and cyberbullying victimization as follows:

***P5: GVT diversity would moderate how opportunities affect cyberbullying victimization in a GVT. All diversity types, surface level, deep level, and functional level diversity as well as cultural diversity, would increase the impact of opportunities on the likelihood of cyberbullying victimization.***

### **3.8 Consequences of Cyberbullying Victimization**

#### *3.8.1 Individual Consequences*

Exposure of GVT members to cyberbullying behaviors committed by other GVT members who exploit opportunities to cyberbully would have consequences for the targets and teams. First, individual-level consequences for victims could include (i) socio-professional consequences such as workplace isolation, professional defamation and stigmatizing, absenteeism, reduced job satisfaction, and job loss; (ii) overall health consequences including anxiety, despair and depression, burnout, aggression, and suicide; and (iii) economic consequences such as job loss, missed career advancement opportunities, poor job performance, and absenteeism (Farley, 2015; Gardner et al., 2016; Giumetti et al., 2012; Hershcovis, 2011; Kowalski et al., 2018; Muhonen et al., 2017; Privitera and Campbell, 2009). The cyberbullying literature highlights individual-level professional consequences of victimization as poor work engagement, job dissatisfaction, higher intention to quit, and cyberslacking or cyberloafing (Coyne et al., 2017; Farley,

2015; Muhonen et al., 2017). Exposure to cyberbullying behaviors also has personal consequences, such as lower well-being, higher stress levels, and high risk of suicide (Brochado et al., 2017; Kowalski et al., 2014).

Consequences of workplace cyberbullying apart from traditional bullying (although they often overlap) can be explicated for the target as poor health, higher intention to quit, lower well-being, lower work engagement, job dissatisfaction, and wasting time by cyberslacking and cyberloafing (Weatherbee and Kelloway, 2006; Farley, 2015; Muhonen et al., 2017). Although overlapping consequences are quite high, cyberbullying may differ from offline bullying in terms of severity of consequences. For instance, exposure of a coworker to cyberbullying behaviors was found to have a stronger negative relationship with job satisfaction as opposed to offline bullying (Coyne et al., 2017). Emotional costs for victims such as feeling of fear or distress were observed as much as they are in real-world stalking and harassment (Holt and Bossler, 2008). Stress was positively related to the cyberbullying while a significant relationship couldn't be found between cyberbullying and job satisfaction by Snyman and Loh (2015). In young samples, suicidal ideation besides stress was also observed, and a high risk of suicide was reported (Kowalski et al., 2014; Brochado et al., 2017). Victims of cyberbullying leave the organization as a last resort after constructive conflict-solving strategies are tried by most victims, however they fail eventually (Zapf and Gross, 2011).

Our study will examine the consequences of cyberbullying on the targets (an individual or a group of individuals) with regard to the job satisfaction, job performance, and intention to quit. Therefore, we propose as follows:



***P6: Cyberbullied GVT members would suffer from lower levels of job satisfaction and job performance and would develop an intention to quit the team.***

### *3.8.2 Team Consequences*

Cyberbullying victimization might affect GVTs besides GVT members who are victimized. Studies that examined the relationship between conflict and team performance in virtual teams distinguished between conflict types and their impact on team performance and effectiveness. Some studies have posited and found that although relationship conflict might hurt team effectiveness and performance, moderate level of task conflict, through enhanced understanding of various viewpoints and creative options, can be beneficial to team effectiveness and can improve organizational performance and growth (Jehn, 1997; De Dreu and Weingart, 2003). However, bullying is an escalated and prolonged conflict that has not been managed effectively (Zapf, 1999; Einarsen, 2000). Therefore, they might lead to counterproductive behaviors, which in turn diminish the team performance (Ayoko et al., 2003). In our theoretical framework, team-related consequences will focus on team performance measured by task quality as a task-related outcome (Kankanhalli et al., 2006), and whether schedule and budgetary constraints were met in the end of the task or the overall project. Therefore, we can propose the consequences of victimization of GVT members by cyberbullying as follows:

***P7: GVT performance would decrease due to the cyberbullying victimization.***

### **3.9 Summary of the Propositions**

The propositions developed within the theoretical framework above are summarized as follows:

*P1a: The perceived value of a GVT member as a target would increase the opportunities to cyberbully, and therefore would lead to the victimization of the target.*

*P1b: The visibility of a GVT member as a target would increase the opportunities to cyberbully, and therefore would lead to the victimization of the target.*

*P1c: The accessibility of a GVT member as a target would increase the opportunities to cyberbully, and therefore would lead to the victimization of the target.*

*P1d: Lack of capable guardianship would increase the opportunities to cyberbully, and therefore would lead to the victimization of the target.*

*P2: Opportunities to cyberbully will have a positive relationship with cyberbullying victimization.*

*P3: Communication medium related characteristics, lack of immediacy of feedback, bullying messages rich in symbol variety and online disinhibition effect, would increase the opportunities to cyberbully in GVTs.*

*P4: Virtual team development stages moderate the association between the opportunities to cyberbully GVT members and victimization of these members as a target.*

*P5: GVT diversity would moderate how opportunities affect cyberbullying victimization in a GVT. All diversity types, surface level, deep level and functional level diversity as well as cultural diversity, would increase the impact of opportunities on the likelihood of cyberbullying victimization.*

*P6: Cyberbullied GVT members would suffer from lower levels of job satisfaction and job performance and would develop an intention to quit the team.*

*P7: GVT performance would decrease due to the cyberbullying victimization.*

## CHAPTER IV

### STUDY 1: QUALITATIVE THEMATIC ANALYSIS OF DATA CORPUS

#### 4.1 Research Model and Design

Since global virtual teams (GVTs) have not been investigated in terms of cyberbullying or other related concepts such as cyber incivility and cyber harassment, an exploratory examination is required. A qualitative approach was suitable for this study because collecting data through qualitative thematic analysis and interviews (in Study 2) was critical to exploring possible answers to the research questions that examine the antecedents, moderators, and consequences of cyberbullying behaviors in GVTs. Constructs and relationships are investigated based on the theoretical model developed in Chapter 3 (Figure 3).

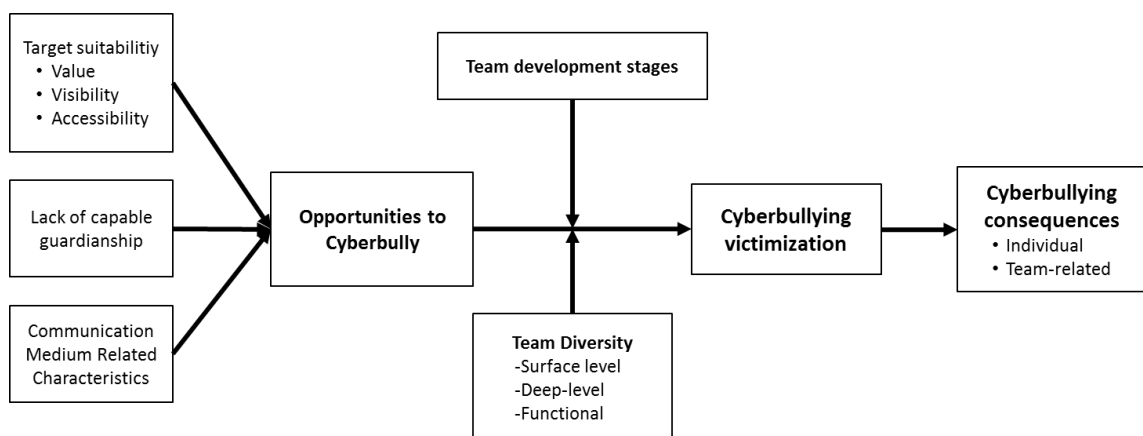


Figure 3. Research Model for Study 1

Target suitability elements and lack of capable guardianship create opportunities to cyberbully GVT members. The realization of these opportunities leads to the victimization of GVT member(s) as a suitable target. Occurrence and intensity of cyberbullying victimization are moderated by two factors, which are communication medium characteristics and team diversity. Victimized GVT members suffer from the consequences of cyberbullying. Besides them, teams are affected by these negative acts. Propositions in our theoretical model have been developed in Chapter 3 and are outlined as follows.

P1a: The perceived value of a GVT member as a target would increase the opportunities to cyberbully, and therefore would lead to the victimization of the target.

P1b: The visibility of a GVT member as a target would increase the opportunities to cyberbully, and therefore would lead to the victimization of the target.

P1c: The accessibility of a GVT member as a target would increase the opportunities to cyberbully, and therefore would lead to the victimization of the target.

P1d: Lack of capable guardianship would increase the opportunities to cyberbully, and therefore would lead to the victimization of the target.

P2: Communication medium related characteristics, lack of immediacy of feedback, bullying messages rich in symbol variety and online disinhibition effect, would increase the opportunities to cyberbully in GVTs.

P3: Opportunities to cyberbully will have a positive relationship with cyberbullying victimization.

P4: Virtual team development stages moderate the association between the opportunities to cyberbully GVT members and victimization of these members as a target.

P5: GVT diversity would moderate how opportunities affect cyberbullying victimization in a GVT. All diversity types, surface level, deep level, and functional level diversity, as well as cultural diversity, would increase the impact of opportunities on the likelihood of cyberbullying victimization.

P6: Cyberbullied GVT members would suffer from lower levels of job satisfaction and job performance and would develop an intention to quit the team.

P7: GVT performance would decrease due to the cyberbullying victimization.

#### **4.2 Research Sample**

Our data set was derived from a large data corpus<sup>1</sup> composed of comments made by students who were involved in global virtual teams (GVTs) as part of a competition named “X-Culture.” X-Culture competition is a 2-month (3 weeks of preparation, and eight weeks of collaboration) competition in which mostly undergraduate and graduate students participate in GVTs as part of their international business courses and work together on real business projects presented by corporate partners. Besides students, professionals can also participate in X-Culture business projects. X-Culture<sup>2</sup> competition provided a very large and convenient data corpus composed of 137,475 comments spanning seven years starting in 2013.

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<sup>1</sup> Data corpus refers to all data collected for a particular research project, while data set refers to all the data from the corpus that are being used for a particular analysis.

<sup>2</sup> X-Culture website is <https://x-culture.org/>.

Participants collaborate through various communication media such as Skype, e-mails, and WhatsApp, and meet weekly deadlines. Detailed performance data is collected during this period. Started in 2010, X-Culture competition hosted 66,466 students from 652 universities in 102 countries as of the end of the Spring 2020 semester. Our data corpus included the weekly comments made by participants in the “X-Culture Weekly and Post-Project Peer Evaluations.” Between 2013 and 2019, inclusive, 53,869 students from 10,958 teams made comments, not necessarily for all the weeks since comments were not mandatory to fill in. Students were asked, “Any other comments, concerns, suggestions?” in addition to the survey questions. Many comments included text such as “NA,” “None,” “Great,” “All good,” “Fine,” “Good,” slashes and some punctuation marks. Therefore, comments which are blank or equal to and less than 20 characters have been removed. The number of comments per week is illustrated in Table 7.

Table 7. Number of Comments per week

<b>Week</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>
<b>Number of comments</b>	15,308	11,982	9,668	9,714	8,364
<b>Week</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>TOTAL</b>	
<b>Number of comments</b>	7,892	6,755	3,587	<b>73,270</b>	

Besides the above-mentioned comments, students were asked to tell about their experiences each week. They were asked, “Please describe your X-Culture experiences in the past week in your own words. Tell us how your team is doing, have you experienced any problems, have you learned something new, anything you are happy or disappointed about?” In addition to the weekly experience comments, they were asked in the last week,

"What would you change if you were to do a similar GVT-based project again?" These comments were also included in the analysis. The number of experience comments per week is shown in Table 8.

Table 8. Number of Experience Comments per week

<b>Week</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>
<b>Number of Experience Comments</b>	8,365	9,764	4,742	7,048	6,444
<b>Week</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>Change</b>	<b>TOTAL</b>
<b>Number of Experience Comments</b>	6,730	5,564	2,052	13,496	<b>64,205</b>

While some team members typed the same comments for weekly survey and experience comments, some of them were different. Therefore, they were also considered if they are a part of a cyberbullying case. The total number of weekly comments and experience comments is 137,475.

### 4.3 Selection of the Research Methodology

In line with the existence of a large data corpus composed of text, a qualitative analysis was required to analyze. Identification of the codes and patterns necessitated a meticulous examination of the data. Therefore, we looked for the keywords and assessed the results based on a priori constructs outlined and explained in Chapter 3. Establishing rigor and trustworthiness in research is of high importance to ensure validity and reliability in the results (Koch, 2004). However, qualitative research needs to follow its unique paths to achieve rigor different than quantitative research does. A researcher must

establish rigor by returning to the original text to make sure that all conclusions are firmly grounded in the data or explained by the researcher's interpretive scheme (Koch, 2004, p.91). Thematic analysis, as proposed by Braun and Clarke (2006), has been considered the most appropriate approach to analyze the data corpus after a variety of qualitative methods, including conversation analysis, interpretative phenomenological analysis, grounded theory, discourse analysis, and narrative analysis were considered.

Study 1 utilizes a theoretical thematic analysis rather than an inductive analysis or an analysis with constant comparison (Percy et al., 2015). While our theoretical thematic analysis attempted to fit the data into any preexisting categories, we still looked for emerging themes and subthemes to explore whether a modification is required in the constructs and the theoretical model. To conduct a rigorous research process, Braun and Clarke's (2006) thematic analysis was selected to carry out the analysis.

#### **4.4 Ensuring Trustworthiness in the Research Process**

In order to ensure trustworthiness in our research, we followed the guidelines proposed by Nowell et al. (2017) based on Braun and Clarke's (2006) thematic analysis to systematize and increase the traceability and verification of the analysis through a decision trail (Koch, 2004).

First off, keywords were derived from four studies' questionnaire instruments (i.e., Cyberbullying Questionnaire (CBQ) by Jönsson et al., 2017; Workplace Cyberbullying Measure (WCM) by Farley et al., 2016; bullying by e-mail, SMS, or telephone-based on Negative Acts Questionnaire-Revised (NAQ-R) by Privitera and Campbell, 2009); cyber incivility measures by Lim and Teo, 2009). Second, keywords



were typed in their possible shortest form (e.g., *intimidat* for intimidating, *ignor* for ignored, ignoring, *condes* for condescending) to mitigate the risk of skipping cyberbullying-related comments. Some keywords were typed, taking into consideration the typos and alternatives (e.g., *agressive* for aggressive, *ofensive* for offensive, both e-mail and email). Third, all weekly comments were searched with all keywords, including their shorter forms and possible typos. Fourth, when at least a keyword was found in a comment, it was checked if it is related to any conflict. If it is related to a conflict, other comments by the same team member and other team members were checked if it may be related to cyberbullying. In most of the cases, the target commented in different weeks, which also implies the repeated nature of cyberbullying and how initial interpersonal or task-related conflicts can be escalated to cyberbullying. Fifth, all comments made by the victim, and comments by witnesses, if available, were retrieved and pasted in a different Excel sheet, and then coded in Atlas.ti which is a computer program for qualitative data analysis. Atlas.ti does not make any automatic coding but facilitates the coding process. Atlas.ti ensured that the same situation was coded with the same words, including the punctuation marks. Sixth, cases were classified into four categories and labeled as “Not CB (Cyberbullying),” “Not escalated to CB,” “CB,” and “Maybe CB.” after they were verified by two doctoral students, including the dissertation author.

An audit trail has been provided in Figure 4, in particular, to ensure that “another researcher with the same data, perspective, and situation could arrive at the same or comparable, but not contradictory, conclusions” (Koch, 1994; Nowell et al., 2017, p. 3).

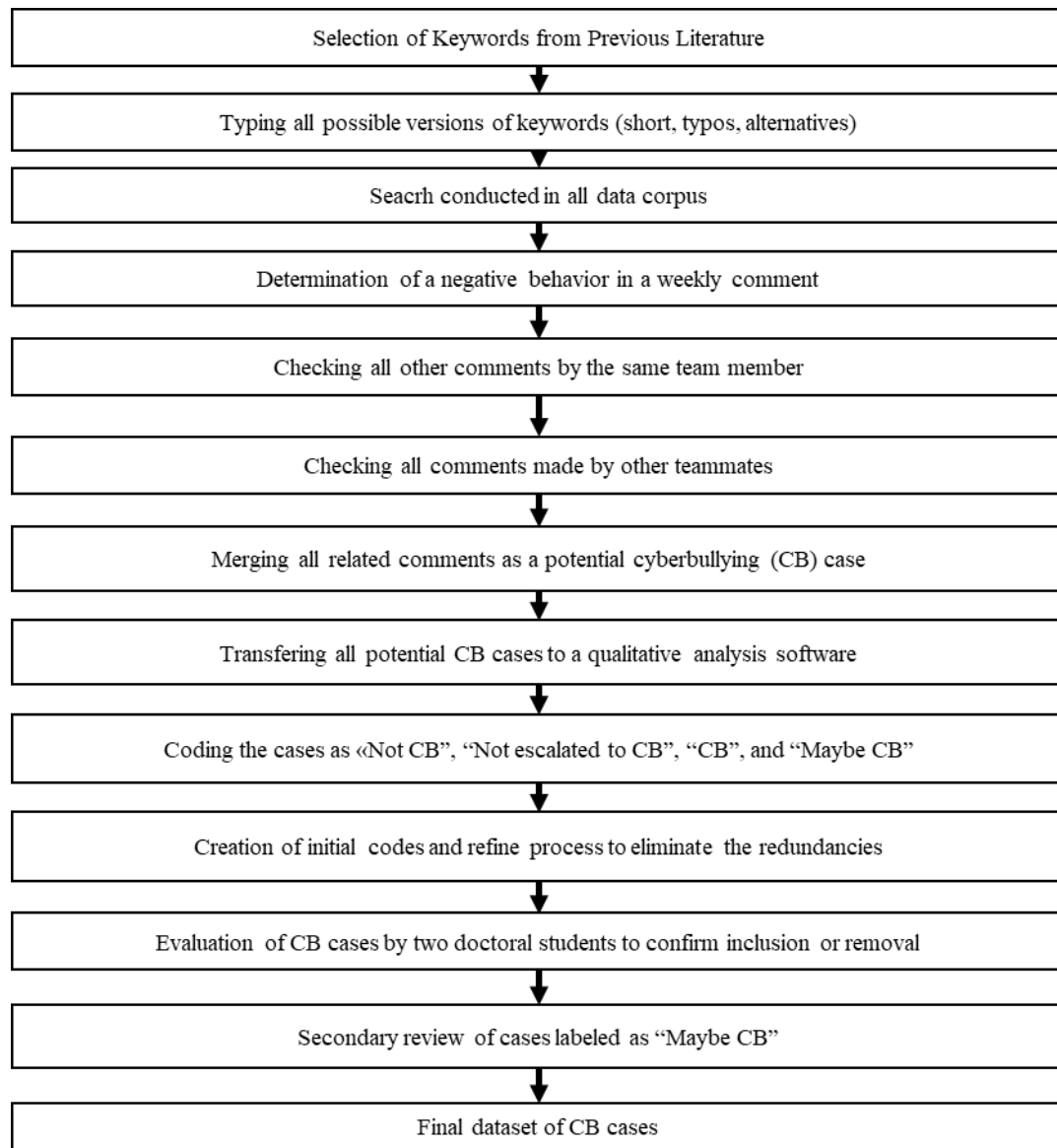


Figure 4. Audit (Decision) Trail

#### 4.5 Thematic Analysis of the Data

In our research, we utilized Braun and Clarke’s (2006, 2019) thematic analysis methodology as a qualitative analytic method. We followed their step-by-step guide to conducting thematic analysis in our data corpus, and derive a data set composed of

themes, sub-themes, and codes. A thematic analysis follows six steps which are (1) familiarizing yourself with your data, (2) generating initial codes, (3) searching for themes, (4) reviewing themes, (5) defining and naming themes, and (6) producing the report.

#### 4.5.1 Phase 1: Familiarizing Ourselves with the Data Corpus

Since the data corpus consisted of substantially large information as mentioned above, keywords were used to spot the relevant data, and finally to create a data set. Therefore, the data was first refined by looking for keywords that may indicate a cyberbullying case. Based on the above-mentioned four studies' survey instruments, main keywords were derived for cyberbullying behaviors (Table 9).

Table 9. List of Keywords for Cyberbullying Behaviors

<b>Main Themes from Previous Literature</b>	<b>Keywords</b>
Target ignored by teammates	Ignored, Not replying
Rude messages sent to the target	Rude, Disrespectful, Insulting, Offensive, Humiliate, Ridicule, Intimidating, Joke, Teasing, Sarcasm, Discourteous, Hurtful, Put you down, Condescending, Demeaning, Derogatory, Demeaning
Aggressively worded messages sent to the target	Aggressive, Capital letters, Caps, Bold, Exclamation marks, Shouted at, Anger, Rage
Target excluded from work and-or social environments	Withheld, Excluded, Bypassed, Email list, Social, Facebook, Twitter, Conflicting, Ignored, Hostile, Reaction
Unreasonable work demands from and orders to the target	Unreasonable, Competence, Unmanageable, Workload, Deadline, Target
Criticism of work performance of the target	Persistent, Criticism, Performance, Unfair, Excessive, Monitoring, Quitting Work, Questioning, Competence, Repeated, Reminder, Error, Mistake

Attacks against the personality of the target	Threaten, Personal, Undermine, Friend, Family, Criticism, Character, Appearance, Opinion, Attack, Value, Life, Abusive, Violence
Security breaches against target's computer and accounts	Identity, Hijacked, Viruses, Email address
False statements made and spread about the target	Allegations, Rumors, Gossip, Spread, False, Statements, Permission, Jokes, Extract, Copy, Paste, Distorted meaning, Photos, Videos, Offensive

The total number of initial findings based on the keywords was 413 comments. Some of the comments included more than one keyword. However, only the first keyword that led to the finding was used, as shown in Table 10. Comments from the same person and other teammates were checked if they expressed opinions related to a potential cyberbullying behavior. Out of 413 comments and their related comments, 40 comments were evaluated as positive, self-critique, and recommendation. They, therefore, were removed since they are not related to cyberbullying behavior (See Table 11 for some quotes for these comments).

Table 10. Number of Comments which included Initial Keywords

Keywords	Count	Keywords	Count	Keywords	Count
Rude	137	Hostile	6	Derogatory	1
Ignore	57	Belittle	5	Discourteous	1
Aggress	40	Demean	3	Distort	1
Insult	17	Slang	3	Fake	1
Harass	18	Threat	3	Hate	1
Exclude	14	Freak	2	Insignificant	1
Hurt	13	Humiliate	2	Rumor	1
Racism	11	Joke	2	Sarcastic	1
Sex	11	False	2	Steal	1
Inappropriate	8	Offensive	2	Swear	1
Bully	7	Condescend	1		

Table 11. Examples for Positive, Recommendation and Self-Critique Comments

Type of Sentiment	Comment
Positive	This week was a little more rough. It was hard to get people to communicate and get moving until today. Finally had to get the group leader to send an <u>aggressive</u> email to get others motivated.
	I think my group member are very creative and <u>aggressive</u> to respond when discuss although time is our challenges because time are different between 6 of us.
	I will respect all the team members and will not <u>harass</u> any of them by <u>bulling</u> or by something etc.
Recommendation	"I really like that all the team members were form various parts of the world, some places I did not know about. I think that the program was wonderful, with four of my five team members making a dream team. I think in future that members should be asked to learn about other cultures and the people that they will work with. Also, there should be greater stipulations for persons engaging in <u>harassment</u> and free riding, who will jeopardize the quality of work to be delivered by the teams. Overall I enjoyed working with the group I was placed in and hope we can continue our friendship."
	It needs a lot of effort to organize people who live and work in different continents, with different time zones. You know it could be anytime that someone writes you to have some infos or a piece of advice. / Not everyone will put the same effort in the project because it probably doesn't worth the same for everyone (some people already works in companies for example so they are much more busy during all the day; some people have a different effect on their final grade etc.), but if you are able to instill a sense of responsibility towards the group into each and every member then thing are gonna go better. I don't think that getting <u>angry</u> or being <u>rude</u> can solve the situation, I think that openness, kindness and patience can be much more powerful with lazy team members: people after a while start feel floored and ashamed about your nice behavior. Anyway, the only rule is not letting go. / This is the way I'm managing conflicts by now. I hope this leadership style is going to create a friendly, cooperating and productive working environment.
Self-critique	It is my understanding that one of my teammates misunderstood me and maybe thought I was being <u>rude</u> or too firm when we messaged each other over WhatsApp. The misunderstanding came from the fact that I am very formal when I text, but I have not said anything that was intentionally <u>offensive</u> . I explained to my teammates that I am just

	used to sending messages that are more formal as that is just my regular style (I have had people tell me similar things about my texting style in the past), and that I will try to be mindful of their point of view so there are no future misunderstandings.
	Having recently a new student job and encountering personal Issues recently, it can be hard to focus on the project and now with the new hours to find a time to meet my team members. For example , I did my SWOT analysis, but simply forgot to send it, being tired and working the whole week end, and being too tired to think of anything else once back home; It could look <i>rude</i> to my teammates, but it wasn't made to make me a burden. For now, still trying to ally my new hours and the hours of my team (also workers)

All remaining 373 comments were read several times to ensure that they may be related to a cyberbullying behavior. Among these negative behaviors, 44 of them were not related to any cyberbullying acts and might be a minor conflict that did not escalate to cyberbullying. In many cases, targets or witnesses commented in different weeks, which also implies the repeated nature of cyberbullying and how conflicts can be escalated to cyberbullying. During this process, comments belonging to the same member and the same team were merged as one case. Besides, comments in the data corpus from all relevant team members were checked again to include all comments associated with the cyberbullying cases.

After the creation of potential CB cases that amounted to 295, they were transferred to the Atlas.ti software to perform the coding. They were grouped into four categories, and accordingly labeled as “Not CB (Cyberbullying)” (140 cases), “Not escalated to CB” (16 cases), “CB” (78 cases), and “Maybe CB” (61 cases). Cases were labeled as “Maybe CB” if they need a secondary review of whether to be considered as cyberbullying or not.

#### 4.5.2 Phase 2: Generating Initial Codes

Each case in the form of data extracts was coded consistently throughout the document. An example of a case has been given in Table 12. Atlas.ti was used to type codes to ensure consistency across the cases.

Table 12. Initial Code Example

Data Extract	Coded for
<p>Week 7 - The project has been going for me, but in my team, there is a member (<i>Male's name</i>) who is really disrespectful, he always attacks us and is never in agreement with the ideas we have to carry out the project. In addition to this, he does not help and always has a bad attitude and answers our calls in a rude way.</p>	<ol style="list-style-type: none"> <li>1. Disrespectful member</li> <li>2. Always has a bad attitude</li> <li>3. Answers our calls in a rude way</li> <li>4. Attacks us</li> <li>5. Cyberbullying</li> <li>6. Does not help</li> <li>7. Free rider</li> <li>8. He always attacks us</li> </ol>
<p>Week 8 – He is still being very rude, He always has a bad attitude. In addition to this, He doesn't do anything, but always criticizes the team's ideas.</p>	<ol style="list-style-type: none"> <li>9. Interpersonal conflict particularly between two</li> <li>10. Last week had positive comments in general</li> </ol>
<p>Week 9 - We still have problems with him, because he doesn't help much and he's quite rude.</p>	<ol style="list-style-type: none"> <li>11. Never in agreement with our ideas</li> <li>12. Quite rude</li> <li>13. Repeated</li> </ol>
<p>Week 10 - I really liked doing this project, I learned a lot and I knew different cultures; Although there were people who were a bit rude in my team and who helped a little, it was good to meet the other members of the group.</p>	<ol style="list-style-type: none"> <li>14. Reported in week 7</li> <li>15. Rude</li> <li>16. Still problems with him</li> </ol>

During initial coding, four cases were merged into other cases since comments were related to other teammates. Thus, 74 cases were retained as cyberbullying. All the potential cyberbullying cases were evaluated by two doctoral students to decide on inclusion or removal of cases in the dataset. Out of 61 cases that were labeled as “Maybe

CB,” 33 cases were identified as cyberbullying. In total, 107 cases were concluded to be cyberbullying cases.

#### 4.5.3 Phase 3: Searching for Themes

Theme “captures something important about the data concerning the research question and represents some level of patterned response or meaning within the data set” (Braun and Clarke, 2006, p. 82). In our analysis, themes are theory-driven rather than data-driven (Braun and Clarke, 2006). Our research model consists of constructs from routine activities theory and extant literature about team diversity, communication medium characteristics, cyberbullying behaviors, and consequences.

After data was initially coded and collated, codes that were identified across the data set and composed of 107 cases were sorted into potential themes that focus our analysis at a broader level (Braun and Clarke, 2006). Codes were combined to form overarching themes. For instance, as is seen in Table 13, different negative behaviors committed by cyberbullies against targets were collated as “Negative behaviors by the cyberbully.”

Table 13. Sub-themes of Negative Behaviors Theme

<b>Negative behaviors by the cyberbully</b>
Low peer evaluation
Does not consider other members
Not working
Offender blocks target to contribute
Attacks
Sexual harassment
Ignored by the bully
Ignoring the target
Criticism of work performance and capability



Abusive supervision
False statements about the member(s)
Creating subgroups in a team

Thematic maps were created for visual representations for each theme. For instance, twelve sub-themes that represent negative behaviors were relabeled as themes, and their sub-themes were created visually in thematic maps. Figure 5 exhibits the sub-themes and codes for the negative behavior labeled as “Ignored by the bully.”

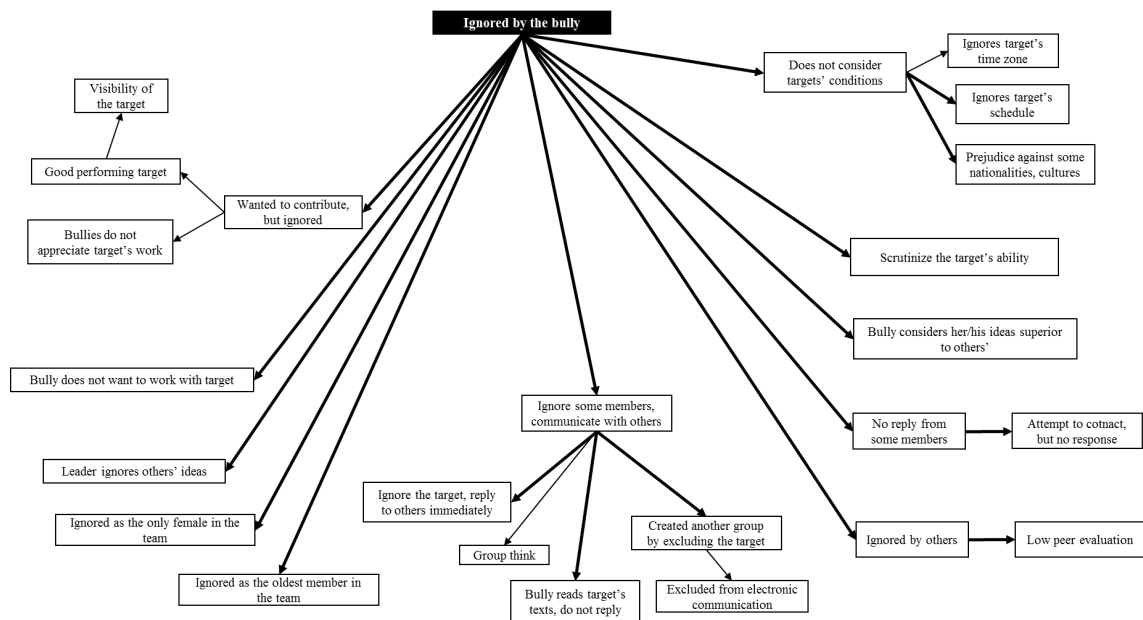


Figure 5. Thematic Map for Cyberbullying Behavior “Ignored by the bully”

#### 4.5.4 Phase 4: Reviewing Themes

Phase 4 began when a set of candidate themes had been devised. This phase involved the refinement of those themes (Braun and Clarke, 2006). For instance, our initial theme, “Ineffective Leadership,” which has thirteen sub-themes, was reviewed

after the assessment of comments and codes. In accordance with the literature (Hershcovis, 2011), it was named “Abusive Supervision” with six sub-themes and codes for each sub-theme (Figure 6).

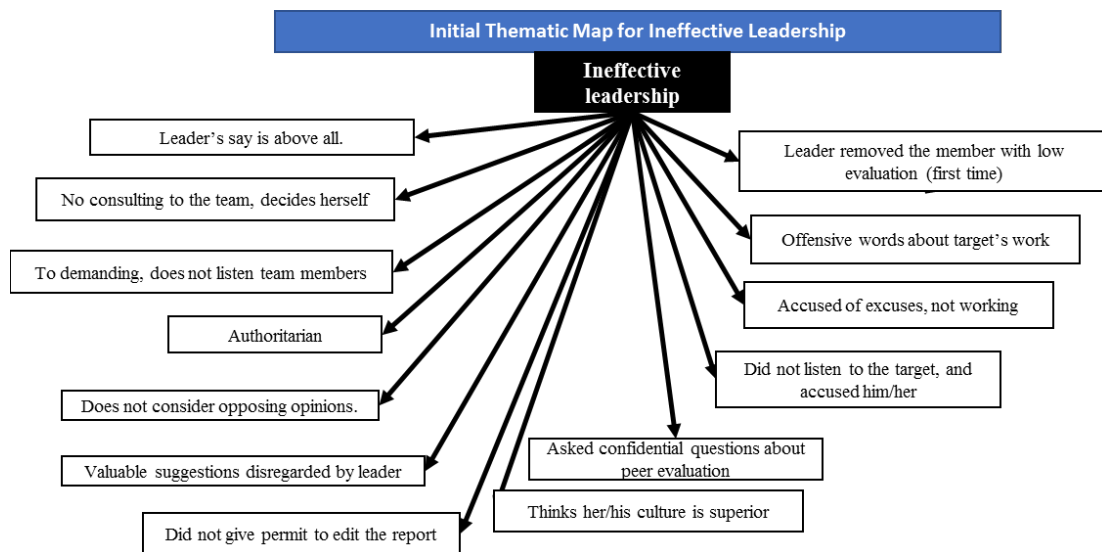


Figure 6. Initial Thematic Map for Ineffective Leadership in Phase 3

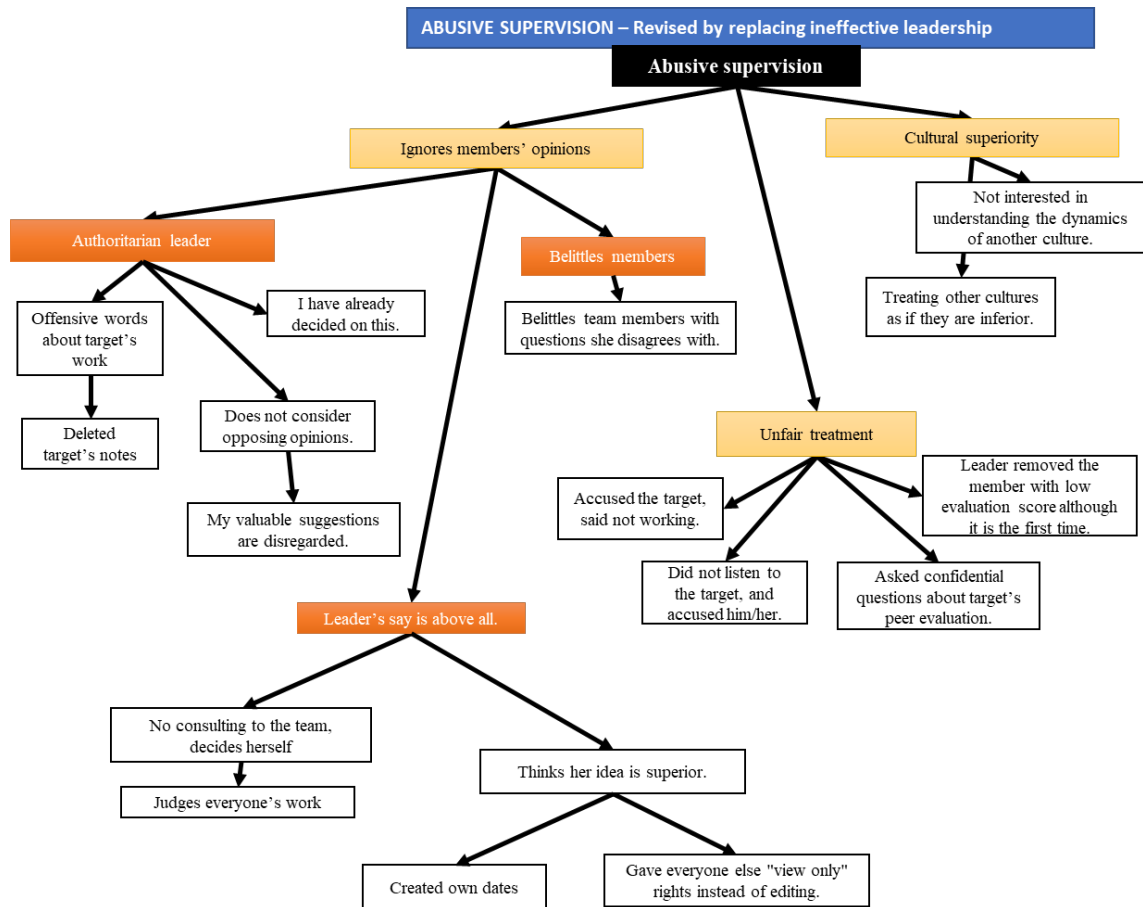


Figure 7. Reviewed Thematic Map for Ineffective Leadership (named abusive supervision after revision) in Phase 4

#### 4.5.5 Phase 5: Defining and Naming Themes

After we acquired a satisfactory thematic map of our data, we wrote a detailed analysis of each theme as well as their sub-themes and their content (Braun and Clarke, 2006). It is of high importance to ensure that themes do not overlap with one another. An example has been provided in Table 14 for the theme “Abusive Supervision” and its sub-themes.

Table 14. Defining and Naming the Theme “Abusive Supervision” and its Sub-themes

<b>Themes and Sub-Themes</b>	<b>Definition / Content</b>
Theme: Abusive supervision	Subordinates' perceptions of the extent to which supervisors engage in the sustained display of hostile verbal and nonverbal behaviors, excluding physical contact. (Tepper, 2000: p. 178)
1. Ignores members' opinions	The team leader ignores the team members' opinions.
a. Authoritarian leader	Team leader dictates policies and procedures, and s/he mostly decides on the process and goals her/himself.
b. Belittles members	A team leader deprecates subordinates' contributions to the tasks and their job performance.
c. The leader's say is above all.	The team leader thinks her/his opinions are always superior to subordinates' opinions, and s/he does not consult them.
2. Unfair treatment	The team leader criticizes the subordinate unfairly and gives lower evaluation scores.
3. Cultural superiority	Team leader treats team members from other cultures as if they are inferior to her/his culture, and is not interested in learning about other cultures.

#### *4.5.6 Phase 6: Producing the Report*

In this phase, we have provided the findings of our thematic analysis per each construct and the hypotheses. Our findings from the final dataset of 107 cases with their codes, themes, and sub-themes are elaborated in the following sections for each construct, and related hypothesis is provided in the section “4.6 Results”.

### **4.6 Results**

#### *4.6.1 Summary of the Results*

Table 15 exhibits the number of cases that correspond with each construct. All cases were related to at least one cyberbullying behavior. Therefore, the number of cases

for cyberbullying victimization is 107, which is the total number of cases derived from the X-Culture data corpus.

Table 15. Distribution of Constructs by Each Case

<b>Construct</b>	<b>Number of Cases</b>
Value	7
Visibility	21
Accessibility	12
Lack of Guardianship	31
Communication Medium Characteristics	57
Team Diversity	45*
Cyberbullying Victimization (Behaviors)	107
Individual Consequences	49
Team Consequences	15

\* Among 45 cases, 30 cases were related to cultural diversity.

Table 16 shows subthemes identified for each theme. Cultural diversity has been added besides team diversity in order to highlight the importance of this theme since it was identified in 30 cases.

Table 16. Themes and Their Subthemes

<b>Themes</b>	<b>Subthemes</b>
1. Value	(1) Trying to outperform a good performing member, (2) stealing valuable information from the target, (3) sexual harassment-related value-seeking, (4) forming a smaller group, (5) thrill-seeking, and (6) acceptance from offline peers.
2. Visibility	1) Encountered the offender, (2) high visibility in group chats, (3) informal leader, (4) good performing target, and (5) gender harassment.
3. Accessibility	(1) Accessibility due to the necessity to keep in touch with team members, (2) communication in a social networking site, and (3) collaborating in a shared file.

4. Lack of Guardianship	(1) Organizational governance, (2) leadership (in particular informal leadership), and (3) peer support.
5. Communication Medium Characteristics	(1) Seeking ways to enhance the quality of communication, (2) using a medium to cyberbully, (3) lack of immediate feedback, (4) video chats to enhance the communication among team members, (5) using symbols which enhance the negative interpretation of message content, (6) online disinhibition effect, and (7) problems of Internet access for some countries.
6. Team Diversity	(1) Age, (2) gender, (3) ethnicity, (4) time differences, (5) language differences and barrier, (6) personal characteristics, (7) attitudes, and (8) educational background.
7. Cultural diversity	(1) Claiming and/or performing cultural superiority, (2) not respecting other cultures, (3) racism, (4) lack of interaction about different cultures, (5) stating things rudely due to the culture, (6) making negative cultural remarks on target's culture, and (7) prejudices and stereotypes about members from specific countries.
8. Cyberbullying Victimization (Behaviors)	(1) Ignored by the cyberbully, (2) excluded from the communication media (3) sexual harassment, (4) does not consider or respect target's personal or local conditions, (5) attacks the target, (6) criticizes or belittles target's work performance, capabilities and outputs, (7) abusive supervision, (8) prevents the target from contributing, (9) makes or spreads false statements about the target, and (10) creating subgroups in a team.
9. Individual Consequences	(1) Intention to quit, (2) low individual performance, and (3) low satisfaction.
10. Team Consequences	(1) Team performance, (2) bad quality outcome, and (3) loss of trust in the organization.

#### 4.6.2 Target Suitability Elements

##### 4.6.2.1 Value

The value theme has the following subthemes: (1) Trying to outperform a good performing member, (2) stealing valuable information from the target, (3) sexual harassment-related value-seeking, (4) forming a smaller group, (5) thrill-seeking, and (6) acceptance from offline peers.

Many cyberbullying targets in our student GVTs expressed the reasons implicitly or explicitly in their comments as to why cyberbullies targeted them. First of all, cyberbullies committed negative acts against good performing members in order to outperform them, gain more reputation for their work performances, and obtain a higher role or a better position. They strived to eliminate an important rival, to get rid of a female leader (since they think females as ineffective leaders or members), or to assert a cultural superiority. Accordingly, a female target stated: *“Then I received the X-Culture mail which said one person voted to exclude me. As I almost personally worked on our last milestone for which I was not responsible I was really surprised and disappointed by this. I shared this with the group who all said that it was ridiculous. I do have a feeling it was our [nationality] team leader, who does not like me (a woman) making suggestions that touch upon our structure/organization or suggestions at all.”*

Another value perceived by the cyberbully has been to steal valuable information from the target. When the team worked on a shared document such as Google Doc, cyberbully had the opportunity to copy information produced by another member and use it as if the target’s contribution belongs to her/himself. One target expressed this as follows: *“She completely copied the spreadsheet what I did and then created her own. When I asked her why, she just said for everyone to use hers without any explanation.”*

Cyberbullies did not always look for a value that they would benefit in the business context, but they also conducted thrill-seeking activities. In one of the cases, a male teammate sexually harassed a female teammate. The target of sexual harassment described it as follows: *“Also, I talked to my professor about this, but he was making*

*unprofessional jokes towards me saying his roommate and himself are in love with me & are going to come up to [place where the target studies] to see me (this happened 2 Wednesdays ago), and then again yesterday, he said his roommate was in love with me.”*

In this case, besides thrill-seeking, as Cohen et al. (1981) indicated, the cyberbully attempted to prove himself to his offline peers, in particular adding one of them in his messages. In another case, a group of cyberbullies cooperated and excluded the target: *“They have their alliance and are unwilling to meet me on even the simplest of tasks without arguing with me.”*

Based on the findings retrieved from our data, we can conclude that opportunities to cyberbully increased when motivated cyberbullies perceived that there is a value that can be acquired by bullying the target. Based on the findings, we can assert that opportunities to cyberbully increased when motivated cyberbullies perceived that there is a value that can be acquired by bullying the target, which is in line with P1a suggesting that “The perceived value of a GVT member as a target would increase the opportunities to cyberbully, and therefore would lead to the victimization of the target.”

#### **4.6.2.2 Visibility**

The visibility theme has the following subthemes: (1) Encountered the offender, (2) high visibility in group chats, (3) informal leader, (4) good performing target, and (4) gender harassment.

In our dataset, visibility has stood out as a common antecedent with many statements from targets. In the thematic map for visibility, three sub-themes emerged: (1) Target confronted the cyberbully, (2) target has high visibility in group chats, and (3)



target is a good performing team member. The first sub-theme generally included an interpersonal or a task-related conflict in the beginning but escalated after target attempted to eliminate this conflict by confronting the cyberbully. Bullies, in general, reacted back with a persistent behavior instead of retreating or compromising. Two students from different teams expressed it as follows: *“When we told her we were sleeping, she seemed like she understood, but then it would just happen again the next day.”*; and *“I told him that what he was doing was inappropriate, but he is continuing to do so.”*

As observed in these two cases, confronting the bully did not have a mitigating effect, but it led to a persistent negative behavior by the bully. The visibility of the target increased after the target confronted the bully. Indeed, it seldomly was solved in favor of the target. In one case, the target expressed, *“I called him out on it. We have not talked since the interaction.”* The effectiveness of capable guardians was apparent in the termination of bullying behaviors rather than the confrontation by targets themselves. This factor will be discussed in the section for capable guardians.

In one of the teams, team leader described how her confrontation with a team member escalated to cyberbullying by receiving poor peer evaluations from this member: *“He erased all the work we did in Google Drive, he lied many times, he disappeared constantly for days, and since I was the one who “faced” him somehow, he evaluated me poorly on peer evaluations (though I was leading the rest and doing a lot of work)...”*

In another case, a good performing target tried to encourage her/his teammates to have a better performance. However, s/he ended up being bullied by other team

members: *“When I try to challenge my group to do a better job or take a different approach, they either ignore me or call me “impolite.”*

In many cases, good performing targets were subject to bullying from multiple team members. *“After all what I have done of so much help and so much explaining, my team members do not really want to work with me. Just because I’m following due dates and being on time and they are still behind, they turned on me.”*

In the case below, good performing targets also confronted other members by speaking up to them to work more. However, they received low peer evaluations:

*“I am one of two people who do the majority of work, yet I am being downgraded and receive the lowest ratings by my teammates for speaking up and confronting them for doing poor work or not participating at all.”*

A team member from another team stated that *“They don’t like me very much because I’m always writing in the group, because I want them to do stuff, because I ask them to do something and after I criticize their work either because it doesn’t make sense or because it’s plagiarized. Seriously, I know they hate me but what can I do about it?”*.

Both this member’s continuous presence in the group chat and also a confrontation with other bad performing members caused this target to be bullied.

A sexually harassed female team member who was ambitious to generate an effective outcome employing a fruitful collaboration with team members described the situation as follows: *“Showing too much enthusiasm leads to being insulted by lazy teammates.”*

Based on the findings, we can assert that opportunities to cyberbully increased when targets have higher visibility, which is in line with P1b suggesting that “The visibility of a GVT member as a target would increase the opportunities to cyberbully, and therefore would lead to the victimization of the target.”

#### **4.6.2.3 Accessibility**

The accessibility theme has the following subthemes: (1) Accessibility due to the necessity to keep in touch with team members, (2) communication in a social networking site, and (3) collaborating in a shared file.

In a GVT environment, team members are accessible by all of their teammates since they have to share their contact information such as email addresses, phone numbers, and Skype IDs. Phone numbers are shared for various task-related functions, including texting on phone and smartphone apps, voice calls, video messages and calls, and file sharing. In our data, Skype has been the primary communication medium for video conferences, which can be attended by all team members, including the countries such as China, where some communication media cannot be accessed due to the government regulations on the Internet.

In general, as mentioned above, accessibility cannot be avoided by targets due to the necessity to keep in touch with other team members. For instance, in one of the teams, a female member stated: “... *he created a fake account on Facebook with MY PHOTOS [original is caps lock] as profile picture, what is really unpleasant for me, because I still have to keep working with him even though he is disrespecting my person.*”

*Besides, I cannot exclude him from my Facebook list, because we have a group and a chat on this social platform.”*

Therefore, this also caused desperation for the target. A team member in another team also indicated: *“I am nervous to give out personal information other than what I have given him which is my Facebook and email for communication... I am not comfortable to keep him as a Facebook friend.”* In these two examples, friendship in an online social medium caused an inconvenient situation for the targets since cyberbullies had the chance to access their pictures and posts easily and use them as they want.

The other three examples of accessibility, all of which were related to the sexual harassment, were: *“He calls me, sends me text messages as well as WhatsApp messages to my personal account.”*; *“He messaged me privately and said that my profile picture was really pretty and added emojis of hearts and wink face.”*; and *“he was really intense at sending me harassment messages and voice notes on WhatsApp.”*

A team member from another team described how repetitive emails sent to her in a very short time by another team member causes stress for her: *“A female member from [country name] has also become very aggressive and emailed me three times within an hour telling me I was late for a due date that was never discussed, while she typically takes several days to answer. She also is not participating in the WhatsApp group that she suggested creating for faster communication.”*

Collaborating on Google docs also caused a serious problem for the team when a team member who had conflicts with other team members deleted all the work on which all team members were contributing: *“However, [cyberbully’s name] erased all the work*

*we did for this report... It was probably a mistake, but he didn't say anything which I found very aggressive and selfish. We're sharing a Google Drive Doc, so we lost it all. Thankfully, [another member's name] had the last version of it and that's the only reason why I could submit it... Still haven't heard anything from [cyberbully's name], he's probably asleep and doesn't care much.”*

Another issue related to the accessibility was when an officially excluded member bullied all the team members. This member had been removed from the team because of his lack of contribution to the project and also the conflicts with other team members. He accused others of adjusting his scores. Although this member was removed from the team by the organization, he was still able to access all team members' emails. Therefore, he continued to harass them: *“He sent us an email with a final “proposal” in which he made threats about the project, bribed us, and heavily pressured us an offer to unethically receive a higher rating.”*

Therefore, in our research model, we can assert that opportunities to cyberbully increased when targets have higher accessibility, which is in line with P1c suggesting that *“The accessibility of a GVT member as a target would increase the opportunities to cyberbully, and therefore would lead to the victimization of the target.”*

#### *4.6.3 Lack of Capable Guardianship*

Sub-themes which emerged from our qualitative data have been (1) organizational governance, (2) leadership (in particular informal leadership), and (3) peer support. It was not possible to discern between organizational policies and organizational culture.

Therefore, we were not able to test the impact of a lack of organizational culture on the opportunities to cyberbully and cyberbullying victimization.

#### **4.6.3.1 Organizational governance**

In our sample, the organization represented the X-Culture admins, coaches or professors of team members who are present in different countries. In twenty-four cases, GVT members requested organizational intervention by expressing it in their comments. According to the requests of GVT members from the organization, three patterns of a process undertaken by the organization were observed in the data: (1) Organization did not respond to the requests, (2) Organization responded and intervened to end the conflict or the escalated conflict, that is cyberbullying, and (3) the poor organizational governance including the late intervention and the deficiencies in the organizational policy.

First, the organization did not respond to the requests, and therefore no organizational intervention occurred. Some requests were repeated for several weeks, but to no avail. In ten cases, GVT members described their disappointment when they could not receive any feedback from the organization, or the organization did not step in to address the concerns with regard to the conflicts and cyberbullying among members. This ineffective governance also led to the loss of trust in the organization. Some examples of the lack of organizational intervention can be specified as follows: *“It is too demanding, and I feel that we do not get enough guidance. The coaches never answered any of my messages, neither the admin. I am just frustrated with the whole project.”*; *“If a team member is suggested to be kicked out, the organization should not hesitate to get rid of them.”*; *“A so-called man insulted a woman, an underaged woman, and you guys do*

*nothing about it. Not even an e-mail asking me if I'm still OK to keep working on the project.”; and “One of my team members did nothing during almost all the project, and despite everything we couldn't kick him out of our team.”*

In some cases, organizational intervention was late: *“I spoke with the X-Culture Administration and they agreed to put him on notice and if a third incident occurs, he will be removed from the team.”*

In the second pattern, the organization responded and intervened to end the conflict or cyberbullying. Some cyberbullies continued their negative behaviors, although the organization had warned them. Some of them discontinued the negative behavior after an effective organizational intervention. In one case, a female member was subject to sexual harassment, and she requested an organizational intervention for this inappropriate situation: *“I had a strange experience with one of my team members, his name is [cyberbully’s name], and he was really intense at sending me harassment messages and voice notes on WhatsApp... I shared the screenshots and the voice note with my professor. [Cyberbully’s name] doesn't bother me anymore, he stopped sending me messages.”*

The third pattern was categorized as poor organizational governance. A team member complained about being added to the team late, and the organization’s inadequate response to embed this member into the team. S/he mentioned about this situation as follows: *“I had to deal with being added to a team late because of problems with X-Culture not receiving my first submitted assessment. When I complained and*

*emailed X-Culture about that I was not given a response. Now I have been excluded from my team because I have joined late, due to problems with X culture's assessment."*

In another team, a team member complained about the late intervention of the organization. Besides, an initial ineffective advice by the organization led to the escalation of the conflict: *"It took a while for us to get help on this situation. We were even told that we just needed to handle it in our group and try to fix it the way we had planned with free riders. At this point he wasn't just a free rider he was aggressive and mean."*

Some targets detailed the deficiencies in the organizational policy and the problems in the governance of this policy: *"Furthermore, regulations should be in place when one team member is attacking / offending another team member.";* *"I believe that the peer evaluation system can be better somehow, because I wrote a lot weekly and was very detailed about the situation, but nothing ever happened.";* and *"In the business world this is something that would be dealt with by an HR team. If there is a way for you to put something like that in place it would be helpful for the future."*

Based on the findings retrieved from our data, lack of effective organizational governance in GVTs provided more opportunities for the motivated cyberbullies, which is in line with P1d suggesting that *"Lack of capable guardianship would increase the opportunities to cyberbully, and therefore would lead to the victimization of the target."*

#### **4.6.3.2 Leadership**

One of the negative behaviors in our study was categorized as abusive supervision based on our findings and in parallel with the literature (Hershcovis, 2011). Nine cases



were labeled as abusive supervision (Table 18). When the leader is the cyberbully, and the target is an employee who works under the supervision of this leader, cyberbullying acts against this employee might have more severe outcomes for the target (Hershcovis, 2011). These negative acts committed by leaders have been mapped in Figure 7 titled “Reviewed Thematic Map for Ineffective Leadership (named abusive supervision after revision) in Phase 4”.

In our study, data corroborated two possible directions leaders could assume. In the first one, effective leaders were one of the guardians who can prevent the escalation of conflicts and cyberbullying acts by means of an effective management strategy. Thus, they could eliminate or reduce the negative effects of cyberbullying behaviors. In the second one, ineffective leaders implemented abusive supervision over their team members. In our dataset, the leadership role was assumed as a result of consensus by all members or a member’s hardworking and outstanding efforts. Therefore, there was no one else who was assigned as an official leader by the organization. In all the cases, we could not observe any effective leadership which attempted to manage, reduce, or eliminate the conflicts and cyberbullying behaviors. Victims or witnesses emphasized the lack of effective leadership when cyberbullying behaviors occurred and repeated. A witness of cyberbullying highlighted the need for effective leadership: *“If I were to do this project again, I would prefer to have no leader or a leader who could bring the team together and inspire everyone...”*

Ineffective leadership also caused some team members to create another group where they can discuss the project and tasks independently away from the leader and

other team members. In one of the cases, the leader was considered ineffective and demanding by some members. Therefore, it led to the creation of another group where this leader was not included. A witness in this team stated: *“The other guys realized that [Male leader’s name] has been so annoying, so that [Another male member’s name] created another group without him to talk about it.”*

GVT leaders (or supervisors, superiors, managers) may also be cyberbullied by other members (D’Cruz and Noronha, 2013; Zhang and Leidner, 2018). For instance, in one of the cases, a female leader explained her experience as follows: *“I felt one of my team members was rude to me based off of being a female in a leadership role.”*

The lack of an official leader was mentioned explicitly by some members. A team member suggested that teams need official leaders to ensure effective teamwork: *“Establish a formal leader and assign consistent roles and tasks that the same people would be responsible for. Meet more, use video to work together.”*

A member at another team was not satisfied with the informal leader’s capabilities. However, s/he still gave some credit to the leader by saying: *“[Male name] may be the most confused person on the team and was initially the leader, but at least he tries after every Wednesday of each week. It’s not the best work, but his motivation and effort put him above the others. So, he deserves a good score.”*

While team members who did not act as informal leaders offered suggestions for the establishment of a more effective leadership structure, informal leaders also took the floor to express their opinions. An informal leader criticized her/his faults and shortcomings: *“Be more dominant and assign roles right from the beginning. Waiting for*

*others to work and help added more stress for myself. If I asserted dominance earlier, I probably would not have to work with the one person who caused the most conflict in the group and did the least. She would have been kicked out weeks ago.”*

Based on the findings retrieved from our data, lack of effective leadership in GVTs provided more opportunities for the motivated cyberbullies, which is in line with P1d, suggesting that “Lack of capable guardianship would increase the opportunities to cyberbully, and therefore would lead to the victimization of the target.”

#### **4.6.3.3 Peer support**

Supportive team members were another factor that could reduce the opportunities to cyberbully. In one of the teams, a target looked for peer support by directly informing them about the inappropriate behavior besides notifying the organization of it and asking support to overcome the problem: *“One team member [Male leader’s name] has been inappropriate with me through communication. I told him that what he was doing was inappropriate, but he is continuing to do so. I’m not really sure what to do besides ignore him and his messages he has been sending me. I have informed two other team members about what is happening, but I want “you” [organization] to know this and can give me some idea of what I can do or what you can do for me...”*

One team member who was bullied by the team leader sought peer support from other members, and they all agreed with this member: *“... Then I received the X-Culture mail which said one person voted to exclude me. As I almost personally worked on our last milestone for which I was not responsible I was really surprised and disappointed by this. I shared this with the group who all said that it was ridiculous. I do have a feeling it*

*was our [nationality] team leader, who does not like me (a woman) making suggestions that touch upon our structure/organization or suggestions at all...”*

In some cases, target received peer support without asking for support explicitly: *“...some girls even used the private inbox to say how rude he was. But at least now I know it wasn't just me.”*

In two separate cases, team members reported another member's experience. In doing so, they supported their teammates by letting the organization know that this team member is subject to an unfair treatment: *“The gentleman from [country name] has been fastidious and perhaps overinvolved at times, far removing him from allegations that he has done nothing... No concerns, but please make sure you note that the gentleman from [country name] is in fact doing his work and shouldn't be disqualified. We need him (and everyone else) in order to finish the job!”*; and *“[Male member's name] was very rude to [female member's name] this week and has been negative and not very helpful. He's loafing... “[Male member's name] is slacking and it is upsetting [female member's name]. They got into a disagreement over the group chat.”*

In some cases, targets were disappointed since they did not get any support from other team members. Quotes from three different cases are as below: *“After the conflict with him and my "first level English level" no one told him something about it, so everything has to be done he wants to.”*; *“This was just a conversation between me and him, the group didn't say anything even though they were reading.”*; and *“And the ones who are not nasty, never come to the defense of others.”*

Based on the findings retrieved from our data, lack of supportive peers in GVTs provided more opportunities for the motivated cyberbullies, which is in line with P1d, suggesting that “Lack of capable guardianship would increase the opportunities to cyberbully, and therefore would lead to the victimization of the target.”

#### **4.6.3.3 Organizational Culture**

Overall, we can assert that the lack of capable guardianship in GVTs provided more opportunities for motivated cyberbullies, which supports P4. However, the short period of GVTs within X-Culture did not allow team members to feel a strong sense of ownership and establish a direct connection to the goals of the organization (Fey & Denison, 2003). Thus, our data could not generate any results about the organizational culture.

#### *4.6.4 Communication Medium Related Characteristics*

In parallel with our argument that communication media themselves are the sine qua non communication and collaboration instruments in GVTs, the use of these media was addressed widely by targets. Members who were also not cyberbullied mentioned how media could be used effectively to enhance the collaboration among team members. Our thematic map generated sub-themes as (1) seeking ways to enhance the quality of communication, (2) using a medium to cyberbully, (3) loss of trust in the organization, (4) encountering the bully, (5) receiving peer support, (6) problems of Internet access for some countries, and (7) reporting conflicts and cyberbullying to the organization.

Using a medium to cyberbully has been the widest sub-theme in our thematic map. Cyberbullies used a wide range of media to conduct their negative acts against the targets. In our dataset, these media included Facebook, video chats on Skype and

WhatsApp, Google Doc, group chats particularly on WhatsApp, private calls, text and voice messages, and emails. Video chats were mentioned primarily as part of lessons learned indicated by members who witnessed or experienced cyberbullying in their team.

Table 17 consists of quotes from various team members.

Table 17. Selected Quotes made by Targets and Witnesses with regard to the Communication Medium

<b>Communication Medium</b>
<b>1. Facebook</b>
I do not feel comfortable with giving out more information or keeping him as a friend on Facebook.
I am nervous to give out personal information other than what I have given him which is my Facebook and email for communication.
I was put down a lot by one specific person. She would make rude comments on my paper and post things on Facebook negative about me.
He seems to be okay with regular communication, however, this Facebook account has inappropriate content especially as they say it's a fake account, it has a lot of concerning content on it (crude language and references, nudity etc.)
Abruptly, literally out of nowhere, she had removed herself from our Facebook conversation, as well as any forms of communication. This included de-friending us as well as deleting our google doc report.
<b>2. Video Chats and Conferences</b>
In order to motivate my team members, I would do more online video conferences (e.g. per Skype)
I feel [female member's name] and myself were on the same page and were the ones who contributed the most realistic amount of work that was actually helpful. We even skyped.
I would have also pushed more video communication
She is rude and short with her when we meet as a team on Skype and gets very irritated if she doesn't complete a task exactly the way she wants it.
Unofficial leader preferred WhatsApp instead of video calls.
<b>3. Group chats</b>
Well as I described earlier. [Female cyberbully's name] was too controlling and a pain to work with she would send over 6 messages in one night about things that were nitpicky and unimportant.

Honestly bad I feel left out. They were already on a group chat of their own and I hadn't realized the groups were already communicating and were made until I got on my email this Thursday.
They don't like me because I'm always writing in the group.
I will send a group message and it will get totally ignored, and this has happened on more than 1 occasion, more than 2 occasions and more than 3 occasions.
I have been unable to contribute because of hostile chat environment. I unfortunately had to endure for this project.
[Male member's name] answered again ""relax"" and saying he didn't have time to answer me because, opposite from me, he had important things to do. All of this in capital letters.
I tell them if they have issues with me, they need to tell me and correct me either in private or in the group texts or get a coach. But no, I get nothing! They seem very passive. I want them to tell me what's the matter, but they don't. I wait for them to respond. just anything, even a "hi", even a "I can't do it this week because... " something would be nice.
<b>4. Private messages</b>
He messaged me privately and said that my profile picture was really pretty and added emojis of hearts and wink face.
He was really intense at sending me harassment messages and voice notes on WhatsApp,
Also, I have been getting contacted continuously by a male member. He calls me, send me text messages as well as WhatsApp messages to my personal account.
She always sends me private messages and tries to find faults in my work.
<b>5. Emails</b>
He sent us an email with a final ""proposal"" in which he made threats about the project, bribed us, and heavily pressured us an offer to unethically receive a higher rating.
In email, I just wanted him to explain for me. But he is rude. He said I do not like this kind of communication.
I intend to speak with her or email her about her approach. She is too demanding and needs to listen to her teammates more.
A female member from [country name] has also become very aggressive and emailed me three times within an hour telling me I was late for a due date that was never discussed, while she typically takes several days to answer. She also is not participating in the WhatsApp group that she suggested creating for faster communication.
I did everything by myself, but at the end of the week I was marked with 2 by the team members. I start sending emails again, no answer and I am afraid I will be marked with 2 again for this week which will bring me in the position to be excluded from the project.
<b>6. Google Doc</b>
I cannot submit any work because our google doc leader will not allow me access that I have requested for weeks.
Three students, then rushed to complete a report separately from the Group report (my name and a member's name were not on the report cover of the draft I discovered on Google Docs).

He erased all the work we did for this report..It was probably a mistake but he didn't say anything... We're sharing a Google Drive Doc, so we lost it all. Thankfully, a member had the last version of it and that's the only reason why I could submit it..
Leader also edited the whole paper and would not let anyone else do it. She only gave everyone else "view only" rights instead of editing.
<b>7. PM Software</b>
I started a BaseCamp for the team in order to move away from emails as our primary method of communication- only 4 members (including myself) have utilized it.

Due to the lack of immediate feedback in communication media except for video chats and conferences, team members were not able to respond in a short time to the cyberbully. Cyberbullies also exploited the lack of immediate feedback by imposing their opinions and schedule and by submitting their reports without waiting for their team members' or targets' replies and feedback. Time differences increased the impact of the lack of immediate feedback and caused additional delays in replying. Cyberbullies took advantage of this to dictate their ideas. Targets' comments about video chats and conferences were classified mostly inside the sub-theme of seeking ways to enhance the quality of communication. Only one witness reported a cyberbullying behavior through video chats: *"... she is rude and short with her [female target] when we meet as a team on Skype and gets very irritated if [female target's name] doesn't complete a task exactly the way she wants it. While I am aware that teams may not get along all of the time, there should be some level of respect at least. Her behavior is concerning and makes me not want to work with her... and I am not the only member of the team that feels this way."*

Communication via video chats and conferences was the most preferred method, although it was not usually possible for team members to meet on these communication media due to the time differences and language barriers. Team members' comments



included self-critiques and recommendations how video applications could have been more beneficial and motivating for the team: *“In order to motivate my team members, I would do more online video conferences (e.g. Skype) and also try to have conversations about other subjects (e.g. national holidays like thanksgiving). Through online conferences, it is also easier to allocate the work in the team and that everyone clearly knows what their responsibility is...”*; *“... I would have also pushed more video communication as it fell off towards the end and made accomplishing tasks more difficult.”*; and *“If I were to do this project again, ... I would also prefer to have a skype meeting every week. In the beginning, I hosted skype meeting to talk to everyone about the upcoming assignments and get everyone's opinions and assign workload distributions. After the second week, the leader (who was deemed leader in week 3) decided we shouldn't host skype or video calls and stick to WhatsApp. I found this to be a hindrance on the team.”*

As observed in these quotes, lack of immediate feedback was an essential factor in the occurrence of cyberbullying acts. Thus targets, witnesses, and informal leaders conveyed their opinions about how video chats would be more effective.

Cyberbullies also used symbol variety in their messages and emails, and they enhanced the negative interpretation of message content. One bully deliberately used capital letters in his group messages against the target, and the target perceived them aggressive as she explained in her comment as follows: *“I finally wrote back and asked him to explain his point of view. And he said: "hey just relax, I will not explain anything, I'm just saying I don't agree with you". .. [Male cyberbully's name] answered again*

*"relax" and saying he didn't have time to answer me because, opposite from me, he had important things to do. All of this in capital letters. And said that after the report is delivered, he can write an essay to me explaining why his point of view is better "IF THAT WILL CALM U" (his words). I'm sorry, but I am not to be treated like this. After all I've done for the group this is how they treat me?!?!?"*

A male cyberbully who sexually harassed a female team member used emojis to enhance the interpretation of his feelings toward the target: *"[Male cyberbully's name] inappropriate communication. He messaged me privately and said that my profile picture was really pretty and added emojis of hearts and wink face. I called him out on it. We have not talked since the interaction. I reported it to my professor."*

As seen in the quotes by targets, a harassing message rich in symbol variety enhanced the negative interpretation of message content.

Our dataset also included comments in regard to the online disinhibition effect. While it is not easy for coworkers not to respond to a question or comment from a team member in a face-to-face meeting, at GVTs, some cyberbullies preferred to ignore messages from targets although the application shows if others saw the messages and read them: *"I will send a group message and it will get totally ignored, and this has happened on more than 1 occasion, more than 2 occasions and more than 3 occasions."*

In a similar vein, team members in another team excluded the target by not inviting him to the WhatsApp group chat. The target explained as *"I feel like I am being excluded- I just found out today that the entire group has a WhatsApp group chat, and I was never invited until today."*

Another cyberbully sent a lot of messages in a night, whereas this person might not prefer to call or knock on the target's door after the work hours: *“Well as I described earlier. [Female cyberbully's name] was too controlling and a pain to work with she would send over 6 messages in one night about things that were nitpicky and unimportant.”*

Online disinhibition effect made some team members detach themselves from the limitations of the physical environment and express their feelings and opinions easily in an online environment.

Based on the findings, we can assert that negative communication medium characteristics increased opportunities to cyberbully and increased the victimization. Therefore, findings are in line with P2 suggesting that “Communication medium related characteristics, lack of immediacy of feedback, bullying messages rich in symbol variety and online disinhibition effect, would increase the opportunities to cyberbully in GVTs.”

#### *4.6.5 Opportunities*

In our 107 cases, we could not identify specific statements directly referring to opportunities, although target suitability elements, lack of guardianship, and communication medium characteristics provided more opportunities for cyberbullies. Hence they all led to more cyberbullying behaviors and victimization. Therefore, it was not possible to corroborate P3 “Opportunities to cyberbully will have a positive relationship with cyberbullying victimization” in our data set.

#### *4.6.6 Cyberbullying Victimization (Behaviors)*

This thematic analysis generated ten types of negative behaviors directed against targets. Under the thematic umbrella of “CB Behaviors,” sub-themes of negative behaviors were identified as (1) ignored by the cyberbully, (2) excluded from the communication media (3) sexual harassment, (4) does not consider or respect target’s personal or local conditions, (5) attacks the target, (6) criticizes or belittles target’s work performance, capabilities and outputs, (7) abusive supervision, (8) prevents the target from contributing, (9) makes or spreads false statements about the target, and (10) creating subgroups in a team (Table 18). Some cases included more than one CB behavior. Therefore, the total number of CB behaviors amounted to 159 for 107 cases. The most common CB included negative behaviors through which cyberbully did not consider or respect the target’s personal or local conditions (28 cases). Personal conditions were included in 4 cases and referred to gender (female), age (oldest), gender and hierarchy (female leader), and attitude (a cyberbully who is too demanding). In accordance with the structure of GVTs, local conditions prevailed with 29 cases, two of which overlapped with personal conditions. Local conditions consisted of name-calling, pictures, remarks and attitudes with racist emphasis against the target, stereotypes, and prejudices against other nationalities, countries, and continents, time differences, cultural differences, language differences and barrier, and animosity against other religions. In contrast, some of them occurred in the same cases. The number of cases for each cyberbullying behavior type is outlined in Table 18.

Table 18. Number of Cyberbullying Behavior Types

<b>Cyberbullying Behavior Types</b>	<b>Count</b>
Cyberbully does not consider or respect target’s personal or local conditions.	33
Cyberbully attacks the target.	29
Cyberbully criticizes or belittles target’s work performance, capabilities and outputs.	28
Target is ignored by the cyberbully.	27
Sexual harassment	13
Abusive supervision	9
Cyberbully prevents the target from contributing.	7
Creating a subgroup in a team	7
Target is excluded from the media through which team communicates and collaborates.	4
Bully makes and/or spreads false statements about the target.	2
<b>TOTAL</b>	<b>159</b>

Details of all ten cyberbullying behavior types are provided in the Table 19.

Table 19. Details of Ten Cyberbullying Behaviors\*

<b>Negative Behaviors by the Cyberbully / Cyberbullies</b>
<b>1. Target is ignored by the cyberbully.</b>
<ul style="list-style-type: none"> <li>• Target wants to contribute but is ignored by the cyberbully.</li> </ul>
<ul style="list-style-type: none"> <li>• Cyberbully ignores the target but communicates with others.</li> </ul>
<ul style="list-style-type: none"> <li>• Cyberbully does not want to work with the target.</li> </ul>
<ul style="list-style-type: none"> <li>• Target is ignored by the bully due to her/his demographic features such as gender and age (i.e., female member, oldest member).</li> </ul>
<ul style="list-style-type: none"> <li>• Cyberbully considers her/his ideas superior to the target’s ideas.</li> </ul>
<b>2. Target is excluded from the media through which the team communicates and collaborates.</b>
<ul style="list-style-type: none"> <li>• Target was not invited to the online chat application group (e.g., WhatsApp) or video conference meetings (e.g., Skype).</li> </ul>
<ul style="list-style-type: none"> <li>• Target does not receive e-mails, texts, and messages which are related to her/his tasks and responsibilities.</li> </ul>
<ul style="list-style-type: none"> <li>• Cyberbully does not allow the target to access the collaboration medium (e.g., Google docs).</li> </ul>

<b>3. Cyberbully prevents the target from contributing.</b>
<ul style="list-style-type: none"> <li>• Cyberbully does not allow the target to contribute to the tasks in the team.</li> </ul>
<ul style="list-style-type: none"> <li>• Cyberbully does not take into account the target's contribution and makes reworks totally ignoring the target's part.</li> </ul>
<ul style="list-style-type: none"> <li>• Cyberbully tries to control all the works done.</li> </ul>
<ul style="list-style-type: none"> <li>• Cyberbully edits or erases a file or document which is critical to the team performance and outcome.</li> </ul>
<b>4. Sexual harassment (Mostly gender harassment)</b>
<ul style="list-style-type: none"> <li>• Cyberbully calls names the target inappropriately by using gender-biased phrases.</li> </ul>
<ul style="list-style-type: none"> <li>• Cyberbully uses the target's pictures, or private information in his/her social media account by pretending as if s/he is the target.</li> </ul>
<ul style="list-style-type: none"> <li>• Cyberbully sends inappropriate messages to the target's electronic communication account (including sexual jokes).</li> </ul>
<ul style="list-style-type: none"> <li>• Cyberbully harasses the target, who is also the leader solely based on the gender of the leader.</li> </ul>
<ul style="list-style-type: none"> <li>• Cyberbully insults opposite-sex team members.</li> </ul>
<b>5. Cyberbully does not consider or respect the target's personal or local conditions.</b>
<ul style="list-style-type: none"> <li>• Time differences <ul style="list-style-type: none"> <li>▪ Cyberbully ignores the target in another time zone and communicates with her/him during inconvenient times (e.g., night, weekend, etc.)</li> <li>▪ Cyberbully exploits the lack of immediate feedback from the target to exclude her/him or ignore her/his opinions and contributions.</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>• Cultural differences <ul style="list-style-type: none"> <li>▪ Cyberbully claims cultural superiority over the target.</li> <li>▪ Cyberbully does not respect the target's culture.</li> <li>▪ Cyberbully makes racist comments or sends racist pictures and videos to the target.</li> <li>▪ Cyberbully expresses her/his opinions in a manner that can be misunderstood by the target due to cultural differences and does not attempt to correct the misunderstanding caused by that.</li> <li>▪ Cyberbully uses her/his socioeconomic or political conditions in her/his country as an excuse and does not contribute to the team.</li> <li>▪ Cyberbully makes negative cultural remarks on the target's culture.</li> <li>▪ Cyberbully prefers to work with the members from some countries and ignores the target from another country.</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>• Cyberbully works in his/her convenient time and does not consider the target's schedule.</li> </ul>
<b>6. Cyberbully attacks the target.</b>
<ul style="list-style-type: none"> <li>• Cyberbully belittles/looks down on the target.</li> </ul>
<ul style="list-style-type: none"> <li>• Cyberbully attacks the target without provocation.</li> </ul>

<ul style="list-style-type: none"> <li>• Cyberbully starts an argument with the target constantly.</li> </ul>
<ul style="list-style-type: none"> <li>• Cyberbully fights the target in every step.</li> </ul>
<ul style="list-style-type: none"> <li>• Cyberbully attacks the target's ideas but agrees with the same ideas conveyed by other members.</li> </ul>
<ul style="list-style-type: none"> <li>• Cyberbully shuts down the target's voice.</li> </ul>
<ul style="list-style-type: none"> <li>• Cyberbully uses abusive/offensive language against the target.</li> </ul>
<ul style="list-style-type: none"> <li>• Cyberbully sends rude messages.</li> </ul>
<ul style="list-style-type: none"> <li>• Cyberbully sends passive-aggressive messages.</li> </ul>
<ul style="list-style-type: none"> <li>• Cyberbully sends a lot of messages/emails in a very short time aggressively.</li> </ul>
<ul style="list-style-type: none"> <li>• Cyberbully does not respond to the task-related messages but sends inappropriate messages.</li> </ul>
<ul style="list-style-type: none"> <li>• Cyberbully tries to have the target to do her/his tasks.</li> </ul>
<p><b>7. Cyberbully criticizes or belittles the target's work performance, capabilities, and outputs.</b></p>
<ul style="list-style-type: none"> <li>• Cyberbully tries to assert and prove that the target's work is wrong or has low quality.</li> </ul>
<ul style="list-style-type: none"> <li>• Cyberbully criticizes the work of the target unfairly.</li> </ul>
<ul style="list-style-type: none"> <li>• Cyberbully tries to find faults in the target's work.</li> </ul>
<ul style="list-style-type: none"> <li>• Cyberbully scrutinizes the target's ability to work at cyberbully's schedule.</li> </ul>
<ul style="list-style-type: none"> <li>• Cyberbully tries to judge the target's work, although cyberbully avoids more difficult tasks.</li> </ul>
<ul style="list-style-type: none"> <li>• Cyberbully lets the target feel as if it is a mistake to ask a question to the cyberbully or team.</li> </ul>
<ul style="list-style-type: none"> <li>• The target receives unsatisfactory work.</li> </ul>
<ul style="list-style-type: none"> <li>• Target's contributions or works are altered without her/his knowledge.</li> </ul>
<ul style="list-style-type: none"> <li>• Cyberbully never agrees with the target's ideas and criticizes them harshly.</li> </ul>
<ul style="list-style-type: none"> <li>• The target receives low peer evaluation from the cyberbully. <ul style="list-style-type: none"> <li>▪ Cyberbully evaluates the target unfairly and gives low peer evaluation scores. <ul style="list-style-type: none"> <li>○ Target wants to participate, but the overall team or cyberbully excludes the target and gives low peer evaluation scores or comments.</li> <li>○ Target works hard but still gets low scores.</li> <li>○ Cyberbully does not work or does the least work but gives low scores to the target.</li> <li>○ Target does not know the reason for receiving low peer evaluation scores.</li> <li>○ Target gets low scores due to his/her visibility in the team (i.e., good performing member, very active in the team collaboration media)</li> </ul> </li> <li>▪ Cyberbully confronts the target for receiving low scores from the target.</li> </ul> </li> </ul>
<p><b>8. Abusive supervision (Cyberbully is the formal or informal leader.)</b></p>
<ul style="list-style-type: none"> <li>• <b>Ignores target's opinions</b></li> </ul>
<ul style="list-style-type: none"> <li>• Cyberbully uses offensive words about the target's work.</li> </ul>

<ul style="list-style-type: none"> <li>• Cyberbully does not take into account opposing opinions.</li> </ul>
<ul style="list-style-type: none"> <li>• Cyberbully does not consult the team and decides her/himself.</li> </ul>
<ul style="list-style-type: none"> <li>• Cyberbully thinks her/his ideas are superior.</li> </ul>
<ul style="list-style-type: none"> <li>• Cyberbully does not give access to collaboration tools.</li> </ul>
<ul style="list-style-type: none"> <li>• Cyberbully deletes the target’s work or edits without notifying the target.</li> </ul>
<ul style="list-style-type: none"> <li>• Cyberbully belittles target with questions with which s/he disagrees.</li> </ul>
<ul style="list-style-type: none"> <li>• Unfair treatment</li> </ul>
<ul style="list-style-type: none"> <li>• Cyberbully accuses the target of making excuses and claims unfairly that the target does not contribute.</li> </ul>
<ul style="list-style-type: none"> <li>• Cyberbully asserts that the team can do well without the target.</li> </ul>
<ul style="list-style-type: none"> <li>• Cyberbully asked confidential questions about peer evaluations and harassed the members constantly.</li> </ul>
<ul style="list-style-type: none"> <li>• Cyberbully removed the target without giving any chance for the target to recover her/his performance.</li> </ul>
<ul style="list-style-type: none"> <li>• Cyberbully distributes tasks to the members unfairly.</li> </ul>
<ul style="list-style-type: none"> <li>• Cultural superiority</li> </ul>
<ul style="list-style-type: none"> <li>• Cyberbully treats other cultures as if they are inferior to hers/his.</li> </ul>
<ul style="list-style-type: none"> <li>• Cyberbully is not interested in understanding the dynamics of other cultures.</li> </ul>
<p><b>9. Cyberbully makes and/or spreads false statements about the target.</b></p>
<ul style="list-style-type: none"> <li>• Cyberbully claims that the target wants to turn other team members against her/him.</li> </ul>
<ul style="list-style-type: none"> <li>• Cyberbully tries to show that it is only the cyberbully or others who have done the work, but not the target.</li> </ul>
<ul style="list-style-type: none"> <li>• Cyberbully accuses other team members or target about adjusting her/his scores.</li> </ul>
<p><b>10. Creating subgroups in a team</b></p>
<ul style="list-style-type: none"> <li>• Cyberbully decides to communicate with some members and choose to ignore the target.</li> </ul>
<ul style="list-style-type: none"> <li>• Some members create a separate group to conduct or finalize a task by excluding other members.</li> </ul>

*\*Although “cyberbully” and “target” have been used as a singular noun, both of them may be plural depending on the cases.*

#### 4.6.7 Virtual Team Development Stages

Although our cases have been composed of comments made in specific weeks, it was not possible to match team development stages with those weeks. GVT members



were asked in weekly surveys at which development stage they were based on Tuckman’s (1965) classification. However, team members did not provide consistent stages. Therefore, it was not possible to corroborate P4 “Virtual team development stages moderate the association between the opportunities to cyberbully GVT members and victimization of these members as a target” in our data set.

#### 4.6.8 Team Diversity

In our 107 cases, sub-themes under “team diversity” theme have been identified as (1) age, (2) gender, (3) ethnicity, (4) time differences, (5) language differences and barrier, (6) personal characteristics, (7) attitudes, and (8) educational background (Table 20). Out of these eight sub-themes, age, gender, ethnicity, time differences, and language differences and barrier are related to the surface level diversity. While personal characteristics and attitudes are linked to the deep level diversity, educational background was the only sub-theme that was related to the functional diversity.

Table 20. Example Quotes for The Surface Level, Deep Level and Functional Diversity

Team Diversity	Quotes
<b>1 Surface level diversity</b>	
1.1 Age	<ul style="list-style-type: none"> <li>“Hard to work on the project when some don't do anything to help. I'm the oldest by far in our group and feel that I'm sort of excluded from some of the decisions... I really enjoyed this project and working with people from other countries... I like that we had to tell a little about ourselves in the beginning, but I think "age" should be eliminated from the questions. My group was 19-26-year old and then me, who is 52. My group changed the way I was addressed once they learned my age. I feel that my age worked against me with the younger group and because of that, I would receive lower reviews than others in my group...”</li> </ul>

1.2 Gender	<ul style="list-style-type: none"> <li>• “I think that these groups should be a fair mixture of male and female. As the only female on my group, I don't feel that my comments or recommendations were taken very seriously.”</li> </ul>
1.3 Ethnicity	<ul style="list-style-type: none"> <li>• “The remaining members evaluated me low even though there was no specific task. I felt uncomfortable as being the only black one in the group.”</li> </ul>
1.4 Time differences	<ul style="list-style-type: none"> <li>• “She can be a bit careless. She doesn't respect time zone differences and has spoken behind my back because I wouldn't answer her, however it was 2am here in New York! I'm kind of upset that she had acted like that it's silly to talk about someone who was asleep like most at 2 in the morning.”</li> <li>• “As he doesn't consider the time difference of other members and he wants to do what only he wishes to.”</li> <li>• “She would also start working on the project when it was 4 AM for 3 out of the 5 group members and then complain when nobody would respond back. When we told her we were sleeping, she seemed like she understood, but then it would just happen again the next day. During these times, she would complain that she was doing all of the work for the whole project, even though it was the middle of the night for us...</li> <li>• The next day when she got our messages (because of the time difference), she blamed it on us for not communicating enough. When she submitted the final document, she sent a message out in the middle of the night for 3 of the group members, so they did not reply back. Without waiting for our consent, she submitted the project making it where we could not make any more connections (but like she would allow this).”</li> <li>• “[Names of two members] started talking about the project when [names of three members] were asleep (different time zone's problems)...”</li> </ul>
1.5 Language differences and barrier	<ul style="list-style-type: none"> <li>• “Sometimes I feel like I would say something that might have come off rude to them, but it is hard to interpret how someone is saying something over messages. Everything I said in conversation was very nice and I hope they did not take things the wrong way. I enjoyed working with them but I feel like they gave me bad grades on the reports because of misunderstandings and I do not think that is fair.”</li> <li>• “It has been very difficult communicating with this group because of all the cultural and language barriers/differences however we do try to work through this.”</li> </ul>

	<ul style="list-style-type: none"> <li>• “He is incapable of speaking English, so he is harming the whole team - I or the other 2 girls have always to do his part of the work.”</li> <li>• “It is difficult to understand him in normal conversation.”</li> </ul>
<b>2 Deep level diversity</b>	
2.1 Personal characteristics	<ul style="list-style-type: none"> <li>• “I believe our team's main issue is with an epidemic of group think. They are all like-minded and have a tendency to all agree.”</li> <li>• “I wish coaching response time was faster. to improve maybe have a personality test so more likeminded individuals can work together.”</li> </ul>
2.2 List of attitudes stated by targets and witnesses	<ul style="list-style-type: none"> <li>• Combative, aggressive, careless, selfish, arrogant, disengaged, disrespectful, unprofessional, amateur, not constructive, not helpful, bossy, control freak, rude, unresponsive, unethical, passive aggressive, disagreeing, complaining, negative, demeaning, always criticizing, mean, discouraging, and too demanding.</li> </ul>
<b>3 Functional diversity</b>	
3.1 Educational background	<ul style="list-style-type: none"> <li>• “Please try to ensure that team members are of similar educational background i.e, a first-year bachelors’ student will have a different mindset and motivation than a second-year master’s student. choose group members of similar caliber.”</li> <li>• “I can admire the thought behind the organization of this projects but graduate students working with undergrads is proving to be a bad decision for this team.”</li> </ul>

Besides team diversity, another theme has been cultural issues which consisted of sub-themes of (1) claiming and/or performing cultural superiority, (2) not respecting other cultures, (3) racism, (4) lack of interaction about different cultures, (5) stating things rudely due to the culture, (6) making negative cultural remarks on target’s culture, and (7) prejudices and stereotypes about members from specific countries. Some of the quotes as regards surface level, deep level, functional and cultural diversity components have been specified as examples in the Table 21.

Table 21. Example Quotes for the Cultural Diversity’s Subthemes

Team Diversity	Quotes
<b>4 Cultural diversity</b>	
4.1 Claiming and/or performing cultural superiority	<ul style="list-style-type: none"> <li>• “... I feel like the [nationality] girls believe that they are better than the rest of the team. The way they talk to the other girls (including myself) is like talking down to us. I finally had enough of it and started calling them out and I feel like things got much better after that.”</li> <li>• “...So, in this group project [nationality] students start to teach foreigners how to do their work, warn them, give them 24 hours and stuff like that? Really hate this kind of ignorant thing, frankly. Lived in the [country] for three years and studied in a private prep school. Know the way how they xenophobically treat others...”</li> <li>• “... One member of the group put herself in a kind of leader, but she ignored all opinions during the project, and I felt a little of prejudice in relation to members of the group that lives in countries like [a South American country].</li> </ul>
4.2 Does not respect other cultures	<ul style="list-style-type: none"> <li>• “Not a good team work. everyone jumps on conclusion way too quickly. does not respect others &amp; the culture differences. expect too much and give bad score when they didn't meet their expectation. please make a diverse team, I am the only Asian in this group and everyone just ignores the time difference. it makes me hard to work together and it makes me start to lose interest in the challenge.”</li> <li>• “Some cultures are more aggressive and assertive and that may shut other cultures down and hurt their feelings. Make them no longer want to contribute.”</li> </ul>
4.3 Racism	<ul style="list-style-type: none"> <li>• “My team member [name of cyberbully] is trying to act aggressive to me and is always criticizing and is trying to target me. Also she has allegedly engaged in making racists comments on me since I am an [nationality]...”</li> <li>• “... After kindly reminding [name of cyberbully] to pick a task as well, he still did not complete the survey but sent me a "hitler-picture"/joke about Germans seeing everyone as enemies and shooting around instead. I was really shocked, offended and felt deeply insulted...”</li> <li>• “Can’t understand why some people do almost nothing but still receive a higher grade. I think peer evaluation is not fair enough, because once I have those who did nothing, it is me will receive a bad grade. maybe there’s some racist discrimination here (since people</li> </ul>

	from Asia receive a lower grade, indeed, I did participate in every week's assignment)."
4.4 Lack of interaction about different cultures	<ul style="list-style-type: none"> <li>• "It's so unfortunate that nobody shared their culture, nobody opened up about themselves."</li> </ul>
4.5 May state things rudely due to her/his culture	<ul style="list-style-type: none"> <li>• "This experience this week was the same as always we work to get stuff together and [name of cyberbully] has to be in control of everything/ I think her culture is that way of stating things kind of rudely, but we get through it and get our stuff done..."</li> <li>• Some of my members need to slow down and understand that you need to be open to other cultures."</li> </ul>
4.6 Made negative / bad cultural remarks on target's culture	<ul style="list-style-type: none"> <li>• "2 of my team members that are [names of two cyberbullies] used very abusive language unnecessarily and [name of one cyberbully] made very negative / bad cultural remarks on my culture which was very demeaning, offensive and unacceptable for me and I believe some action should have been taken as both of them were mentally harassing me and bullying me and were trying to prove me wrong unnecessarily and were trying to show that it's only them who have done the work and the other 3 of us haven't really done anything."</li> </ul>
4.7 Negative impressions about members from specific countries	<ul style="list-style-type: none"> <li>• "... I would like to work again with a group from different countries, but definitely NOT with the group that I am working with now..."</li> <li>• "I would pick to work alone or just with members from the [a North American country] because working with people who do not put in work until the last second or barely at all. irritated me and I hated dealing with people who were too controlling. Some of my members need to slow down and understand that you need to be open to other cultures."</li> <li>• "...and I would wish the coordinators warn other students not to look down and talk to people from especially our part of the world anyhow and that they act properly, and stop been rude and exhibit naiveness about what goes on in developing countries."</li> </ul>

In our cases, time and language differences have been identified and included within the surface level diversity. In comparison to the domestic virtual teams, time differences and language barriers play an important role in team performance because they can hinder effective teamwork among members who have different schedules as

well as sleeping times, and between members whose native language is English and non-English. Overall, findings indicated that team diversity has a role in increasing the impact of opportunities to cyberbully on the victimization of the target, which is in line with P5 suggesting that “P5: GVT diversity would moderate how opportunities affect cyberbullying victimization in a GVT. All diversity types, surface level, deep level and functional level diversity as well as cultural diversity, would increase the impact of opportunities on the likelihood of cyberbullying victimization.”.

#### 4.6.9 Individual Consequences

Targets in our cases also mentioned about how cyberbullying behaviors affected them. Our sub-themes for individual consequences have been identified as (1) intention to quit, (2) low individual performance, and (3) low satisfaction. Table 22 provides some example quotes that corroborate P6 which suggests that “Cyberbullied GVT members would suffer from lower levels of job satisfaction and job performance and would develop an intention to quit the team.”

Table 22. Examples for Individual Consequences from Targets’ Comments

Individual Consequences	Quotes
Intention to quit	“... This is not team's work. This is nothing! If this project wasn't just for one more week, I swear I would have walked away already. What an insult!!!!!! I hope you punish this person, this cannot go unseen...”
	“...Have no intentions to continue doing this project.”
	“I'm not motivated at all to continue with the project. I try to do my job and then my group doesn't take notice of it, it just doesn't work for them...”
	“...She's very rude and isn't a team player. I am becoming very discouraged and I am thinking about opting out...”

Low individual performance	“I feel like no matter how many ideas I suggest, or how much I participate, my ideas are shut down, altered without my knowledge, or completely ignored. If I am not going to be treated as a part of this team, I find it difficult to be motivated to continue...”
	“Listen, I don't know how to be any more clear I need more help. I really do apologize for not doing the requested assignment, but I really do need some help to my situation. I am really sick and tired of doing this project BY MYSELF!!!!!!!!!!!!!!”
	“My other team member [name of cyberbully] is extremely rude and has spoken to me in a way that shows any contribution I make is not welcome and will be criticized or deleted. I have been unable to contribute because of the hostile chat environment I unfortunately had to endure for this project.”
Low satisfaction	“... this week people became very hostile and mean. I was put down a lot by one specific person. She would make rude comments on my paper and post things on Facebook negative about me. I didn't enjoy this week at all, and it make me not want to submit anything, but that just isn't in my nature.”
	“My group gives me work that is unsatisfactory, and then when I try and fix the problem, I catch heavy resistance. I truly am at a loss for words for what has happened with this group. To say that this semester has been rough is an understatement, and this group is the SOLE reason. I can't put into words the experience I have had. I HAVE BEEN ROBBED OF THIS EXPERIENCE...”
	“...There have been some comments made by one team member that caused others to feel insignificant and hurt...”
	“...I really wish for nothing more than to be done with this project and never have to communicate with my group again. Pardon my negativity but this is truly how I feel at this time.”

#### 4.6.10 Team Consequences

Besides individual consequences of being cyberbullied, targets and witnesses reported the negative consequences that directly affected the team or have the potential to affect. Our main sub-theme under the “Consequences for Teams” has been “team performance” while it was also related to the bad quality outcome and loss of trust in the

organization. Some quotes with regard to the team performance have been shown in Table 23.

Table 23. Examples for Team Consequences from Targets' Comments

<p>"...I am not sure if we are going to be able to a good end result for what I read of our draft there is a lot of editing that has to go on..."</p>
<p>... However, [name of cyberbully] erased all the work we did for this report. It was probably a mistake, but he didn't say anything which I found very aggressive and selfish. We're sharing a Google Drive Doc so we lost it all...</p>
<p>I was very frustrated with the way my team member from [country name] talked to others in the group. He was very aggressive and disrespectful. I wish I would've mentioned something earlier so that he could've recognized how it was affecting our team.</p>
<p>... He is really unhelpful, and he just give us a hard time and really he should be excluded from this group now not later really if we were without him it would be much more better than with him...</p>
<p>I would like to make into your consideration [name of cyberbully] is constantly being a problem to our group. Team feel discouraged about her approach. She frequently raises racist and unfriendly remarks to me and [name of another target]...</p>

Based on the thematic analysis, we have identified a negative causal relationship between the cyberbullying victimization and the actual or expected team performance, which is in line with P7 suggesting "GVT performance would decrease due to the cyberbullying victimization."

#### 4.7 Discussion and Implications

Study 1 was motivated by the absence of cyberbullying research in conceptual and empirical studies regarding the antecedents, dynamics, and consequences of cyberbullying behaviors in global virtual teams. In contrast, the conflict has been among the most investigated concepts in virtual team research (Gilson et al., 2015). Another



motivation has been the dramatic increase in the utilization of GVTs by organizations owing to the proliferation of the Internet and ICTs all across the world, even in the less-developed countries (Culture Wizard, 2018, 2020).

We followed the thematic analysis method (Braun and Clarke, 2006, 2019) delineated with six steps for a rigorous examination and the analysis of qualitative data. The thematic analysis of a large data corpus ensured the identification of 107 cyberbullying cases. Our dataset represented a wide range of countries from North America, South America, Africa, Europe, Asia, and Oceania. This was also in compliance with the main characteristics of a GVT in terms of global dispersion. Our research model has been built upon the Routine Activities Theory, which is a deep-rooted theory in traditional and physical crimes and which was utilized by studies that investigated various online crime and deviances as well as theories of media richness and media synchronicity, and team diversity constructs.

Some of the themes and subthemes stood out in our analysis when compared to the extant literature and their potential implications. They are explained in the following subsections, followed by the subsections as regards the limitations and future research, and conclusion.

#### *4.7.1 Target Suitability Elements*

Our data set was helpful in the identification of target suitability elements as the antecedents of cyberbullying victimization. Value, visibility and accessibility of targets created more opportunities for the motivated offenders at GVTs to cyberbully their teammates. None of the victims or witnesses specified opportunities explicitly in their

comments. However, they explicated the reasons why motivated offenders cyberbullied their teammates by exploiting the value, visibility and accessibility of targets.

Among the three elements, visibility was observed in 21 cases, followed by accessibility (12 cases) and value (7 cases). In five cases, visibility was linked to the low peer evaluation scores and comments made by the cyberbully. Value and visibility were linked tightly in some cases. For instance, being a good performer in a team was a reason for the cyberbully to attack the target to gain a value (eliminating a rival and distinguish her/himself in the team). Besides, target had more visibility when s/he performed very well. Therefore, cyberbully found more opportunities to attack the target, combined with the accessibility opportunities.

#### *4.7.2 Lack of Capable Guardianship*

Our findings with regard to the lack of capable guardianship were related to three guardians, organizational governance, leadership and peer support. As explained in the subsection 4.6.3, it was not possible to find data addressing organizational culture. Victims in twenty-four cases strived to receive support and active interventions from the organization, and they expected that the organization can end cyberbullying behaviors. However, in most of these cases, organization was not effective. Although X-Culture GVT members addressed ineffective leadership and peer support, they sought help mostly from the organization because they considered the admins and coaches as the most effective authorities to end negative behaviors and their impact on individuals and the team. Although absence of formal leadership seemed to be an important factor as to

why victims did not ask leaders to help them, nine leaders used their informal authority to cyberbully.

Taking into account the findings on the lack of guardianship and how it provided opportunities for cyberbullies to target victims in GVTs, organizations need to take measures to prevent the escalation of conflicts to cyberbullying, strengthen organizational policies and emphasize the negative consequences and sanctions of violations, and increase the awareness to encourage peer support.

#### *4.7.3 Communication Medium Characteristics*

ICTs constitute the neural system of GVTs which establish the link among team members for communication and collaboration. In 57 cases within our data set, we were able to observe the impact of communication medium characteristics as an enabler of cyberbullying victimization. Besides, in some cases, victims had suggestions on how to enhance the quality of communication to minimize the conflict and cyberbullying. The use of unofficial means of communication such as WhatsApp and Facebook were common, and hence they posed additional risks such as increased visibility and accessibility, and the challenges for capable guardians to reduce the risks because of social networking sites' widespread use for leisure activities. Nevertheless, business GVT members can befriend their teammates on social networking sites, and they can also use applications such as WhatsApp and Telegram. Study 2 will be able to explore the use of tools which are under the control of organizations (e.g., Microsoft Teams).

Communication media's embedded features and policies regarding how to use these media would be critical in the prevention of victimization. Taken into consideration

the subthemes of “reporting conflicts and cyberbullying to the organization” and “loss of trust in the organization”, organizations need to specify various communication options through which cyberbullied victims or witnesses are able to contact the supervisors, team leaders and HR department.

Another salient point is the lack of immediacy of feedback, in particular when the time differences and local conditions (national and regional holidays, school’s fall or spring breaks) are common in GVTs. Therefore, some team members addressed the need to use more video chats and conferences. However, video chats are not immune to the cyberbullying as one team member expressed her/his discontent with another team member who was rude on Skype. In this regard, online disinhibition was another effect that made the cyberbullies behave differently than they do when they meet in person (Suler, 2004).

#### *4.7.4 Opportunities*

As explained in the subsection 4.6.5, it was not possible to identify explicit statements addressing opportunities. Nevertheless, target suitability elements, lack of capable guardianship and communication medium characteristics provided opportunities to cyberbully. In order to investigate the impact and significance of opportunities, we will position it as a construct and test it in Study 3.

#### *4.7.5 Cyberbullying Behaviors and Victimization*

Studies that investigated cyberbullying behaviors in workplaces have identified key behaviors which victims are exposed to (see Appendix 1 for Lim and Teo, 2009; Privitera and Campbell, 2009; Farley et al., 2016; Jönsson et al., 2017). Results of the

Study 1 revealed cyberbullying behaviors which have not been examined in these studies and insufficiently investigated in the extant literature. Five cyberbullying behaviors that stood out as distinct subthemes of negative behaviors in our data set are: (1) Cyberbully prevents the target from contributing, (2) cybersexual harassment, (3) cyberbully does not consider or respect target's personal or local conditions, (4) abusive supervision, and (5) creating subgroups in a team.

While cyberbullies ignored the targets, criticized their work performance, and excluded them from the communication and collaboration media, six of the cases were classified under "preventing the target from contributing". Because in these cases, cyberbullies strived to proactively prevent the targets from participating in the tasks by deleting their notes, replacing their opinions with opposite arguments, not including their contributions although they are highlighted by targets, and denying access to the shared documents.

Cybersexual harassment has generally been investigated in separate studies which examined only workplace cybersexual harassment (Mainiero and Jones, 2013; Ritter, 2014) or adult cybersexual harassment (e.g., Henry and Powell, 2015). A few of the workplace cyberbullying studies included sexual bullying or harassment (e.g., Baruch, 2005; D'Cruz & Noronha, 2013). In our cases, cybersexual harassment was available in eleven cases. Therefore, there emerged a need to distinguish sexual harassment from other cyberbullying types (attacking the target, criticizing or belittling target's performance, and abusive supervision). Our dataset did not reveal any same-sex and

female-to-male cybersexual harassment, however it is also of importance for capable guardians to take into consideration.

#### *4.7.6 Virtual Team Development Stages*

As explained in the subsection 4.6.7, it was not possible to infer any results from our data set.

#### *4.7.7 Team Diversity*

Team diversity elements were available in 45 of the cases. Cultural diversity dominated two third of these cases which is in harmony with the composition of GVTs. This result can be expected taking into account the number of countries involved in the X-Culture competition, and the highly heterogenous structure of the teams. In the remaining fifteen cases, surface level, deep level and functional diversity elements were articulated. Whereas some surface diversity elements such as age and gender were not prevalent, and functional diversity was observed only for the educational background, seven subthemes were identified under cultural diversity. Time differences and language differences were included within the surface level diversity, not cultural diversity. In parallel with heterogenous cultural structure of X-Culture GVTs, in twenty-nine of the cases, cyberbully did not consider or respect target's local conditions (see 4.6.6 "Cyberbullying Victimization (Behaviors) for the details).

All these results indicate the need to handle cultural diversity issues more carefully than other diversity factors. Extant literature indicated that managers should learn the managerial skills that are required in multicultural work environments since managing diversity remains a significant organizational challenge (Mazur, 2010).

Therefore, capable guardians assume a very important role in preventing and mitigating the negative impact of cultural diversity on the cyberbullying victimization.

#### *4.7.8 Individual and Team Consequences*

In 49 cases, X-Culture GVT members reflected on their psychological well-being, job dissatisfaction and diminished individual performance which was affected negatively after they were subject to cyberbullying behaviors. Some of them also expressed their reluctance to stay at the team.

Besides, fifteen team members mentioned how their teams were affected and/or may be affected, particularly in terms of performance, some of which were also related to bad quality outcomes.

### **4.8 Implications**

#### *4.8.1 Theoretical Implications*

Study 1 has significant implications for research. First, our study has probed into the cyberbullying behaviors, which could be detrimental to global virtual teams and their members, and ultimately to the organizations as a whole. Routine activities theory has provided us with the underpinnings that have enabled the determination of the antecedents, which could lead to cyberbullying behaviors in GVTs. This theoretical justification provides us with the examination of causal relationships with the thematic analysis of comprehensive qualitative data. Our study extends the previous research in cyberbullying by integrating the antecedents in the forms of target suitability, capable guardianship and communication medium characteristics, and the impact of team diversity. Not only the research regarding cyberbullying at GVTs benefit from this

research and its outputs, but the studies with regard to the workplace cyberbullying could extend their models to include the antecedents, moderators or mediators and consequences of cyberbullying behaviors. In this regard, our research helps to better understand the dynamics of cyberbullying in GVTs, and how it could affect the victimized team members and lead to negative consequences on the victim as well as team effectiveness.

The application of RAT in a new context in which ICTs are utilized as the principal communication and collaboration tools could have a substantial impact on the modification and adaptation of the theory in cyberspace where offline interactions are not existent or negligible. Ultimately, our research contributes to the enhancement of scientific understanding of GVT cyberbullying and workplace cyberbullying in general.

#### *4.8.2 Managerial Implications*

As firms in a globalized world seek to operate through global virtual teams composed of members from all around the world with high diversity, ensuring an effective and healthy team environment is a key managerial concern for team success and desired outputs. In this regard, concentrating only on behaviors and its consequences bears the risk of overlooking the underlying reasons and enablers of these behaviors. Previous literature that focused on workplace cyberbullying restricted the studies generally with behaviors and their prevalence whereas they did not investigate the antecedents (Privitera and Campbell, 2009; Farley et al., 2016; Jönsson et al., 2017). However, organizational policies and managerial interventions can be developed by organizations once the causes and the mechanism that lead to cyberbullying are identified. In this regard, organizations need to



embark on novel holistic initiatives against workplace cyber aggression and cyberbullying. Our findings in Study 1 contribute to further understanding of the phenomenon. Organizations could use the findings of the study to develop strategies to better recognize cyberbullying in GVTs, design policies, and mandatory employee education to reduce cyberbullying and support victims. Organizational policies could be designed by considering the factors that make GVT members vulnerable to potential offenders. Employees need to be made aware of any vulnerabilities that may expose them to any type of cyber aggression. An initial online training could be required for new employees and before the kick-off of any GVTs. This training could consist of strategies on how to mitigate the risk of being suitable to potential offenders by considering conditions that make them visible and accessible.

Second, organizational policies should also emphasize the measures to prevent the escalation of conflicts to cyberbullying. Two prominent reasons to be cyberbullied have been identified in this study as the pressure on members to keep them adhered with the deadlines and unfair distribution of the tasks among team members. The stress caused by deadlines and unfair task distribution should be managed cautiously by team leaders in order to prevent the escalation of conflicts to cyberbullying. In this regard, GVT leaders should be involved as active agents in the execution of policies and measures. These policies need to be designed to emphasize the sanctions of violations and increase awareness and provide incentives to encourage peer support.

Some of the cases in our dataset started with interpersonal or task-related conflicts and escalated to cyberbullying in the following weeks. The main reason for the escalation

was the poor organizational governance and lack of feedback and intervention from the organization. Following a thorough assessment of various types of electronic media by analyzing the immediacy of feedback, symbol variety, and online disinhibition effect, a guideline depicting the pros and cons of electronic media with recommendations can be prepared by organizations and team leaders (Dennis and Valacich, 1999; Suler, 2004; Bull Schaefer and Erskine, 2012).

Besides, privacy and security-related features of ICTs could play a key role as capable guardians to deter the motivated offenders from committing cyberbullying acts even though target suitability elements are available. Elaboration of ICTs' role as a capable guardian and the extent and significance of their characteristics as an inhibitor could provide the managers, software developers, and cybersecurity analysts with empirical findings to develop measures against cyberbullying behaviors.

#### **4.9 Limitations and Future Research Directions**

As with all research, there are some limitations in our research. Nevertheless, these limitations could also lead to new research opportunities, which are also discussed in this section.

In Study 1, we used secondary data from a very large data corpus of student teams. Although the financial incentives of these traditional subjects are different from the subjects in a business GVT for which they are paid, some of the students in our sample are MBA students and full-time professionals. However, when the low levels of prevalence of workplace cyberbullying are considered (e.g., 2.8% in the sample of veterinarians in New Zealand, Gardner et al., 2016; 10.7% in the male sample in

Australia, Privitera, and Campbell, 2009) and difficulties in reaching out to the business GVT members who experienced or witnessed cyberbullying, it may be challenging for the researchers to find adequate numbers of GVT members.

Another limitation in our data set was the utilization of unofficial means of communication such as WhatsApp and Facebook. While some business GVTs might still use these media due to their common use, these teams prefer Webex, Skype for Business, Microsoft Team, and Enterprise Social Media for communication and collaboration.

A limitation of student teams at the X-Culture competition was the duration of project teams. They were limited to two months. Although many task-related and interpersonal conflicts were observed in the data corpus, most of them did not escalate to a more severe form of aggression, such as cyberbullying. This short timeframe limited the number of cyberbullying. Prevalence rates may remain at a very low level and thus inadequate response rates in student GVTs. Thus, future research may consider the administration of experiments on student teams, in particular, graduate-level students a significant portion of whom work in part-time or full-time jobs.

One of our theoretical arguments as regards the lack of guardianship proposed that a healthy organizational culture that promotes fair treatment of employees could be a capable guardian. However, the short period of GVTs within the X-Culture did not allow team members to feel a strong sense of ownership and establish a direct connection to the goals of the organization (Fey and Denison, 2003). We were able to test the impact of organizational culture in Study 3.

In Study 1, keywords were searched inside all the comments by taking into account misspelling by using shortened or different versions of a keyword (e.g., *haras*, *harass*, *harras* for harassment). However, it is still possible that some keywords may have been overlooked. If a keyword was found in a comment and it was understood that this comment or other comments by the same person in other weeks are related to cyberbullying, the misspelling issue did not create a problem of exclusion in the analysis. Besides, in weekly surveys and through other studies, X-Culture participants were never asked specifically about cyberbullying occurring in their teams. Nevertheless, we were able to obtain 107 cases, most of which consist of several weeks of comments by the victim and/or witnesses.

#### **4.10 Conclusion**

Drawing primarily on routine activities theory, we developed a research model to explain global virtual team cyberbullying with its antecedents, moderators and consequences. We tested our research model by analyzing a large data corpus through thematic analysis proposed by Braun and Clarke (2006). Our research model explains the relationship between the constructs in our model by referring to the quotes directly experienced and delineated by the victims and witnesses of cyberbullying. We believe that the results have significant implications for research on workplace cyberbullying at GVTs and organizations and provide practical guidance for formulating preventive measures and education programs to combat cyberbullying at GVTs and organizations.

## CHAPTER V

### STUDY 2: QUALITATIVE INTERVIEWS WITH GVT MEMBERS

#### 5.1 Research Design

Study 2 aimed to complement Study 1 in the investigation of how global virtual team (GVT) members think about cyberbullying that occurred in their teams. Study 1 investigated the research questions and propositions by analyzing a large data corpus of X-Culture student GVTs. Study 2 intended to understand this novel phenomenon from the perspective of business GVT members. Study 2 was launched to get first-hand knowledge of cyberbullying issues and explore them in more detail. In parallel with the dissertation's research questions, the primary goal of the Study 2 has been to identify how and why cyberbullying behaviors occurred in interviewees' GVTs, and how they, their team leaders and members, and organizations handled these situations. Research questions that were sought to answer in Study 2 were:

- How can target suitability features provide opportunities for the offender to cyberbully GVT members?
- What kind of guardianship lacks in GVTs that provide opportunities for cyberbully GVT members?
- How does the communication medium characteristics provide opportunities for the offender to cyberbully GVT members?

- How does team diversity impact the likelihood of cyberbullying victimization of GVT members as a target?

Since the duration of interviews could not offer adequate time to investigate whole theoretical model, we concentrated mostly on the antecedents of opportunities to cyberbully, target suitability elements, lack of guardianship and communication medium related characteristics, and the role of team diversity.

For Study 2, semi-structured interviews were chosen as the primary data collection method. These interviews were conducted with GVT project managers and members, and they provided an insider view of the phenomenon (Chen et al., 1993). The criterion to be included in an interview was to be involved in a global virtual team in the recent three years. Interviewees were not required to previously have had experienced or witnessed cyberbullying in their teams. If interviewees did not experience or witness any cyberbullying behaviors in their teams, the underlying reasons as to how they avoided any escalation of conflicts or ultimately cyberbullying victimization were probed. Interview requests were not limited to any specific types of GVTs. GVTs included both project teams which have definite start and end dates, and teams carrying out ongoing (routine) operational tasks with members from different countries on a regular basis.

## **5.2 Research Sample**

Our sample consists of fifteen interviewees who live in different countries and work in GVTs (Table 24). They were recruited by means of two websites. The first one is <https://www.projectmanagement.com/> website where PMI certified project managers or people who are interested in project management sign up for accessing articles, templates

and webinars, and creating a network of project managers. The dissertation author made a search by typing “Global Virtual Teams” (and variations such as global, global team, virtual team) in his own network, and sent requests using the template submitted to the UNCG IRB (Appendix E). The second website was LinkedIn. In a similar manner, the dissertation author sent messages if the person indicated that s/he worked in a global virtual team. Although the cyberbullying experience was not a requirement to conduct an interview, forty-seven of the people who qualified to be interviewed did not accept the request. Although twenty-five people agreed to attend the interviews, it was not possible to schedule an online meeting with all of them. Twenty interviews were scheduled, and at the end of fifteen interviews, coding and analysis revealed that saturation was achieved, and no new themes seem to appear in the following interviews. Ultimately, we were able to interview fifteen GVT members from various ethnic backgrounds who lived in the USA, Canada, Mexico, Germany, and Ghana (Table 24).

Table 24. Information about the Interviewees

Interviewee	Position Title	Business Sector	CB Experience	Nationality	Location	Age Range	GVT Experience (years)
A	EDI Project Manager / Product Owner	IT	Witness	Brazilian	NC, USA	35-44	8
B	ERP Support & Project Manager	Traffic Safety	Victim	American	NC, USA	45-54	8
C	Project Manager, PMP	Comm., airlines & healthcare	Not witnessed in her/his team	American	TX, USA	45-54	17
D	Sr. Solution Consultant	IT	Witness	American	WA, USA	65-older	38

E	Data Specialist	IT	Witness	American	NC, USA	55-64	12
F	Global Program Manager	Consultancy	Witness	Mexican	TX, USA	45-54	10
G	Professor, Data Science Consultant	IT	Witness	Mexican	Mexico City, Mexico	45-54	10
H	Professor, Sr. Research Scientist and Scientific Project Manager	University	Not witnessed in her/his team	Mexican	Mexico City, Mexico	35-44	16
I	DevOps and System Architect	Traffic Safety	Not witnessed in her/his team	American	NC, USA	25-34	2
J	HR Director	Network Infrastructure	Not witnessed in her/his team	American	NC, USA	35-44	10
K	System Analyst	Clothing	Witness	Brazilian	Winnipeg, Canada	35-44	10
L	Chief Manager (Technology & Innovation)	Utilities	Witness	Ghanaian	Ghana	35-44	6
M	Senior Investment Manager	Trade Commission (Government)	Not witnessed in her/his team	Turkish	Frankfurt, Germany	35-44	8
N	Investment Manager	Trade Commission (Government)	Victim	Australian	Frankfurt, Germany	45-54	12
O	Project Manager	Pharmaceutical	Not witnessed in her/his team	Turkish	MA, USA	25-34	5

### 5.3 Selection of the Research Methodology

The interviews were conducted as semi-structured interviews. The questions were open-ended. While some questions had been prepared in advance and detail (Appendix



G), there was a room for improvisation during the interviews in order to enhance the interview if the opportunity arose to detail interviewees' responses with probing questions or to contain the interview if the interviewee digressed from the main topic.

As was done in Study 1, Braun and Clarke's (2006) qualitative thematic analysis was conducted in Study 2. The thematic analysis follows six steps which are (1) familiarizing yourself with your data, (2) generating initial codes, (3) searching for themes, (4) reviewing themes, (5) defining and naming themes, and (6) producing the report.

## 5.4 Analysis of Interview Data

### 5.4.1 Phase 1: Familiarizing with the Data

First off, all interviews were transcribed by the dissertation author and saved as separate Microsoft Word documents. After the transcription, they were read again to assure that the dissertation author's and interviewees' dialogues are placed correctly in the texts.

### 5.4.2 Phase 2: Generating Initial Codes

First of all, a coding process was carried out to find codes that repeat across interviews (Charmaz, 1983). This process generated the codes indicated in Table 25.

Table 25. Initial Codes Generated from the Interviews

Accepting the dominance implicitly	Immediacy of feedback
Ambiguous authority	Imposing another national team's opinions
Avoiding conflicts	Issues during and after the merger process

Bossy personalities	Keeping information for themselves
Bullying between the members of collocated national sub-teams	Lack of information sharing
Coalitions	Lack of organization-wide communication rules
Communication medium preference	Language barriers
Conflicts between collocated teams	Organizational culture
Considering differences in expressing opinions and emotions	Organizational policies
Cultural differences	Organizational written policies
Cultural interpretations	Positive collaboration culture of some countries
Cultural issues	Positive collaboration culture of some countries
Different working styles in different countries	Power relations
Distribution of responsibilities initially and effectively	Preference of performance over ethics
Don't try to understand teammate's conditions	Reinforcing the image as superior
Effective communication	Remove the competitor
Effective leadership	Sexual harassment
Effective organizational intervention	Time differences
Effective team collaboration	Toleration based on the acquaintance
Establishing cultural dominance	Toxic culture
Evaluation system	Video conferences
Good organizational and team culture	Willingness to obey to the leaders and members from more developed countries

#### 5.4.3 Phase 3: Searching for Themes

During this phase, we looked for potential themes at a broader level (Braun and Clarke, 2006). All codes identified in Phase 2 were distributed to overarching themes. These themes are (1) underlying causes of cyberbullying, (2) organizational and team culture, (3) organizational policies, rules and code of conduct, (4) leadership skills and

competence, (5) interpersonal skills of team members, (6) communication medium, (7) team diversity, (8) cultural diversity, and (9) conflicts among collocated teams and differences in work styles and ethics.

#### *5.4.4 Phase 4: Reviewing Themes*

This phase targeted refining previously identified broader themes (Braun and Clarke, 2006). Organizational and team culture, organizational rules and code of conduct, leadership skills and competence, and interpersonal skills of team members have been merged as guardianship in line with our research model and its theoretical underpinnings. Conflicts among collocated teams and differences in work styles and ethics have been incorporated into cultural diversity, and team diversity and cultural diversity have been combined. Finally, four higher-level themes have been identified as (1) underlying causes of cyberbullying behaviors, (2) guardianship, (3) communication medium, and (4) team diversity.

#### *5.4.5 Phase 5: Defining and Naming Themes*

A description for each theme and their sub-themes with their content were provided after we acquired a satisfactory thematic map derived from the interview transcripts and data (Braun and Clarke, 2006). These definitions ensured that themes do not overlap with one another. An example has been provided in Table 26 for the theme “Team Diversity” and its sub-themes.

Table 26. Defining and Naming the Theme “Team Diversity” and its Sub-themes

<b>Themes and Sub-Themes</b>	<b>Definition / Content</b>
Theme: Team diversity	The extent to which members of a team are dissimilar (heterogeneous) with respect to individual-level characteristics (Jackson et al., 1995).
1. Cultural diversity	The heterogeneity of members with regard to nationality, ethnicity and race.
a. Cultural differences	Differences between cultural identity groups who share certain worldviews, norms, values, goal priorities, and sociocultural heritage (Ely and Thomas, 2001).
b. Cultural interpretations	Different interpretations of conditions and behaviors based on nationality, ethnicity and race.
c. Different working styles in different countries	Differences in how team members approach a problem or task, and how they solve or carry out them.
d. Establishing cultural dominance	Efforts to impose own cultural values on other team members and the team in general.
e. Imposing another national team's opinions	A national collocated team's efforts to impose their own opinions on other collocated teams.
f. Positive collaboration culture	The culture that promotes collaboration and teamwork, and that is more prevalent in some countries and their citizens/residents.
2. Geographical diversity	Demographic differences based on geographical factors.
a. Language barriers	Miscommunication or lack of communication due to the variety of languages and dialects among team members whose mother languages are different.
b. Time differences	Differences in assigned and geographical times among countries across the world.

#### *5.4.6 Phase 6: Producing the Report*

The results of our thematic analysis based on themes identified in Phase 5 are provided in the following section, “5.5 Results”.

## 5.5 Results

### 5.5.1 *Underlying Causes of Cyberbullying Behaviors*

There may be various underlying causes to cyberbully other teammates. Some of the interviewees explained the motive behind these negative behaviors. One interviewee highlighted several reasons as below. Besides, he also pointed out the toxic organizational culture where the organization tolerates mistreatment for the sake of being competitive. Organizational culture has been elaborated under the “guardianship” theme.

“I think it is not different from bullying at school. The reason could be several reasons, just people trying to reinforce their image as superior or they believe they are better than the others, or it would be sort of the cultural. Organization's culture. I used to work at another company in Brazil, and this company is quite commercial, and the culture there was quite aggressive...”

Another reason for cyberbullying behaviors was indicated as the efforts of dominance by one country team on another country team. Study 2 provided the opportunity to observe this conflict, and four interviewees explained how collocated country teams attack other country teams altogether. One interviewee detailed one example of this cyberbullying:

“...Especially it is based on the experience of the teams. Like the majority of problems we have faced is because one site, one team is considering that the new team onboarding is not good enough to be working with them at least in the beginning.”

In the quote above, it can be seen that cyberbullying may extend beyond one or several GVT members’ actions, and it may become a collective action. Another

interviewee indicated the problems experienced between collocated teams created an exacerbating effect due to different working styles and habits:

“We have already established teams in two European countries. They didn't like the Brazilian team at all. Doesn't matter the reason here, but it was a matter of confusion and conflict. They had a different way of working in Brazil, and they received sort of training for a couple of months. And after some time, they started to work a bit different. You become the Black Swan when you are small and tiny, and everybody looks at you. Their mindset is “You are so different, so we don't like you just because you are what you are.” And after some time, they started to build up the Brazilian team’s capacity, and, in the end, they were being treated like equal. But it is a matter of investment of the company providing travels for people to go meet each other to create more synergy rather than having one office without so much interaction.”

This interviewee also highlighted the importance of getting people together in person to break the ice to gain more synergy, which is salient to better interactions and outputs in future activities. One interviewee who was the project manager detailed her experience regarding why another member cyberbullied her:

“It was a weird situation because I have no title at the time, but I was made project manager. So, I had in a somewhat authority over the project, but we never had a kickoff meeting or any sort of formal saying, "Hey, this is [NAME,] she is a project manager, she just going to hold all of you accountable." It was just a very undefined and unregulated process, so he could have been like why is this person even talking to me.”

As is seen in the quote above, the undefined authority, which was a result of ineffective organizational governance, caused the project manager to be bullied by another member. Cyberbullies are also known for spreading rumors or false statements about the target, and they can create coalitions with others. In the case below, cyberbully

targeted the manager because he thought the manager restrained him in accomplishing his goals.

“I was a manager, and I had hired someone who used to be a vendor of ours, and he was younger. He was in his early, maybe late 20s, and he had a lot of great ideas of innovation and especially at the time because of the workload we had encouraged him. But said we need to do it slowly. This is not something that's going to be received very well, and apparently, he got very frustrated, and so basically, he started building coalitions with other people in the company. Talking badly about me, lying about me, trying to get people not to like me...”

In this case, peer support was another important factor, and the remaining of the quote has been discussed in the following sub-section.

Cyberbullies may also offend targets for non-work related purposes. The value they look for could be acquiring personal sexual enjoyment.

“...The Irish guy is the biggest problem in the team because he is always sending sexual innuendos. He does it on Skype calls in meetings. I think he feels like he's speaking to his male friends in a bar or in a pub... We have Dropbox that serves as the repository for storing our files for the project I think the guy was loading up his documents and he mistakenly uploaded the pornographic material...”

This constant disturbance created a serious problem in the team. Besides, the accessibility of this cyberbully to the targets was easy since the team had meetings on Skype, and they had a shared online folder into which members can upload files.

Another reason why offenders were motivated to cyberbully was to eliminate competitors in the team, and desire to retain the information in order to be more competitive:

“I think the information is power and then if they don't really want to see this person, they just remove them. Some competition, internal competition for a position, and they just want managers decide to remove their competitor. They can take advantage of the situation. So, they want to retain the information. They don't want to give it to other people.”

Underlying causes have been provided as a summary in Table 27.

Table 27. Underlying Causes of Cyberbullying Behaviors

<b>Underlying Causes of Cyberbullying Behaviors</b>	<b>Impact on Cyberbullying</b>
Cyberbullies reinforcing their images as superior	Increases.
Cyberbullies believe they are better than others.	Increases.
Reasons which are related to cultural factors (Addressed under “Team Diversity”)	Increases.
Toxic organizational culture	Increases.
Efforts of dominance by one country team on another country team	Increases.
Lack of communication and interaction among team members	Increases.
Undefined authority on the leader’s side	Increases.
Creating coalitions to bully other team members	Increases.
Cyberbully’s perception as being restrained by the team leader	Increases.
Non-work related purposes such as acquiring personal sexual enjoyment	Increases.
Eliminating competitors and the desire to retain the information to be more competitive	Increases.

### 5.5.2 Guardianship

Organizational governance was one of the guardianship sub-constructs, and it was one of the dominant themes highlighted by the interviewees. Some of the interviewees who did not experience cyberbullying in their GVTs explicated what their organizational



policies are, and how they are utilized to ensure a healthy organizational environment.

One interviewee stated that he also received training on the code of conduct, and this kind of training is common in large organizations:

“Every company I work with has had codes of conduct. [An American aerospace and defense company] had a quite a number of ethics training type things that dealt with some. Some of it was pretty specific to sexual misbehavior but it went beyond that. And I did take an ethics training. I had some sort of a code of conduct training last couple of months with [A multinational computer hardware company] as well. There's probably no large company that doesn't require staff to go through something of that. Big companies will impose those kinds of ethical standards and there are consequences I've seen them.”

Despite the existence of rules that strive to assure employees maintain a professional work life, they may not be adequate to prevent some coworkers and GVT members from committing negative behaviors against their teammates. One of the reasons an interviewee who is an HR manager explained was a transformational event that is mergers and acquisitions, which might leave employees confused about what to do. She explained this situation as follows:

“We're also in a state of flux right now for the last three months. We got acquired in April. We still have our legacy handbook that has those policies in it, but we also are now the [company] so we're a new company and that new company or that “bad old” company has its own set of policies. So, there are two versions of everything and you have to kind of figure out which one applies to whom.”

She also shared her opinions concerning the later stages of mergers when the new organization can provide a clearer company policy, which regulates communication among coworkers.

“After companies have merged, now there is a very clear policy of what is and is not appropriate, and the steps that will be taken if you are found to be inappropriate. They're very clear that there's no sense of privacy using company software or equipment and that anything you do in those mediums can and will be used against you, to a few who don't follow policy.”

Although the monitoring of communication logs made through company software and equipment may make some employees feel a sense of diminished privacy, this could be considered as an effective way of coping with cyberbullying behaviors in GVTs.

In some cases, victims and witnesses expressed their loss of trust in the organization due to the organization's failure in responding to and coping with negative behaviors of GVT members. One of the interviewees expressed his distrust on codes of conduct by emphasizing the role of managers:

“When you're talking to people about a code of conduct on the ethic indicators, we get a lot of those. I wouldn't say it improves things because you still have to rely on your manager being good. We have a new big boss now. I could rely on him. The previous boss, for example, I could not rely on her. It would have been a nightmare with her, and I think it's not that easy to get rid of this person. You know power relationships.”

This quote shows the organizational politics between the policies and the agents like managers who are responsible for executing these policies. Despite the existence of well-structured organizational policies, managers can prevail over them and don't comply with them, although they are delegated to do so. Another distrust on the organizational governance was indicated by an interviewee as follows:

“I was at [An American aerospace and defense company] when there was one vice president. It was a real bully, and they caught him once on a conference call

being a bully, and somebody called him on it, and he was demoted for a period of time. I think he moved back up because he was too good at what he's done.”

The distrust on the organization was a prominent issue indicated by eight interviewees. However, GVT leaders sometimes could not assume their authority when they were not given the key authority to choose the team members. One of the interviewees who is a project manager in an African country explained his frustration with the project governance as below. The event the interviewee detailed was related to cybersexual harassment, and it demonstrated how organizational politics and relationships tie GVT leaders' hands.

“I think the major problem has to do with the team selection. It wasn't done by me. There is a consultancy firm in England. We've come to discover that some people's level of competencies is not good, but because of their international connection, they have mandate to be part on the project. They speak language that is not respectful to women, and they send jokes that people do not appreciate. Some jokes are very sexual in nature, but they say them anyway, and controlling them becomes very difficult, which has led some people to resign actually, especially women...”

Organizational or team culture was another factor that undermined the guardianship. In one of the teams, toxic organizational culture enabled the mistreatment, which was tolerated by the organization for the sake of being competitive.

“...Organization's culture. I used to work at another company in Brazil and this company is quite commercial and the culture there was quite aggressive. So, it was common to bully people and the crossing the line. And if someone you know get close to harassment even this way company was not going to do anything because that's the way it is.”

Another interviewee who has not experienced any cyberbullying in his GVT detailed how team culture, which ensured empathy, sympathy, and effective collaboration was in his team:

“I have never experienced a cyberbullying event... Everyone has a working style, and others respect this style. We decide on what to do until next meeting. We decide together. Between meetings, I communicate with my members if they need assistance. In the following meeting, if some have problem, other teammates try to help. Just in the very beginning, we set the role distribution and responsibilities. Everyone tries to get involved. I think I have not worked with people who separate themselves.”

An interviewee also highlighted how organizational culture might differ across different national cultures.

“...I think also the people I have interacted had been educated with this global vision. I mean for example countries such as the European countries. They have learned about the importance of agreeing to disagree and even respecting differences and so on. So, they have a strong culture of collaboration and that culture of collaboration comes with the maturity of managing differences. I prefer to work more with Europeans. Culturally speaking. Because I think they have this collaboration culture going on.”

In addition to the organizational governance and culture, another effective guardianship, which was identified by some interviewees, was the leadership with an emphasis on leaders' interpersonal skills. One interviewee detailed how a leader's role as a mediator is essential:

“Somebody made a comment in a group session and somebody else contacted me later on and said they didn't feel good about the comment. Then I went back to the first person. I asked them to clarify and I acted as the intermediary. I'd ask them to clarify and then I give a clarification to the whole team to make sure that things

were not misunderstood. When you're typing a response and you don't have much time, you don't always engage your brain. Sometimes when you're talking in a session and it gets a little more casual again, you don't always think before you talk. So, I make sure that the things that are said are appropriate and if anybody really feels bad about the comments we need to clarify with the group. We can't look dumb as if there's no bullying, there's no misunderstanding.”

With regard to peer support, one interviewee explained how she was able to reveal a cyberbullying case that targeted her. Peer support played a key role in the identification of these behaviors and helped the HR department to dismiss the cyberbully.

“...About half of those people would forward that IM conversations to me while I was in this weird conundrum. OK, I know what he's saying but I don't want to expose the people that have forwarded it to me and so that was a hard thing because I had to work with him every day and I knew what his real feelings were and eventually he became more open about his feelings. He would say to my face "you don't know what you're talking about" and he would call meetings with myself and the director saying that we were holding them back and we had something against him and he would send emails all the time making demands and saying you never reply and it just was a very rough eight or nine months but eventually he was let go because he wasn't productive either and he was causing a lot of strife that wasn't my decision it was more of an HR decision because he was breaking policy.”

Among fifteen interviewees, six have not experienced cyberbullying as a victim or witness. In these interviews, interviewees expressed some key points that explain why cyberbullying was not an issue in their teams. Effective communication was the most highlighted theme. One interviewee also emphasized the empathy and sympathy of himself and other team members as well as the importance of the specification of role and task distribution in the team, especially in the very early stages.

“I have never experienced a cyberbullying event. Sometimes, they did not get me involved in meetings. But it is not intentional. Because I do the same sometimes.

Everyone has a working style, and others respect this style. We decide on what to do until next meeting. We decide together. Between meetings, I communicate with my members if they need assistance. In the following meeting, if some have problem, other teammates try to help. Just in the very beginning, we set the role distribution and responsibilities. Everyone tries to get involved. I think I have not worked with people who separate themselves from their teams.”

Two interviewees explained how they avoided conflicts and cyberbullying in his teams by highlighting the communication and asking clarification:

“I haven't experienced many cyberbullying problems because I'm typically working with people who are in industry and this wouldn't be very good for their career. I also try to pull people aside and ask them to clarify what they were saying.”

“Of course, there are disagreements between members. But then we return to each other and ask for more clarification.”

Another interviewee who is also the team leader detailed the clarification process and how he acts as a mediator among team members:

"Somebody made a comment in a group session and somebody else contacted me later on and said “Hey, I didn't feel good about the comment”. Then, I went back to the first person. I asked them to clarify and I act as the intermediary. I'd ask them to clarify and then I give a clarification to the whole team to make sure that things were not under misunderstood. I say sometimes that when you're typing a response and you don't have much time, you don't always engage your brain. Sometimes when you're talking in a session and it gets a little more casual again, you don't always think before you talk. So, I make sure that the things that are said are appropriate and if anybody really feels bad about the comments, we need to clarify with the group. we can't look dumb there's no bullying, there's no misunderstanding."

In addition to the efforts of GVT members and leaders to achieve a healthy communication environment in their teams, some interviewees gave examples of

ineffective communication. An interviewee expressed his frustration when team members in other countries did not establish empathy and had unrealistic expectations. Besides, there was serious ambiguity in the distribution of tasks and responsibilities.

"They couldn't understand that a professor in Mexico has to teach a lot. You say well I'm a professor and they assume that you have a lot of research time or things like that. But when you let them know that your research time is much less than they imagine, it becomes strange. I think it becomes the source of misunderstanding because they are assuming a certain situation for you and it turns out that you don't have it. So, you have to state how many hours you are going to work in the project right. So, it becomes a misunderstanding because maybe they think you are not so much interested but the problem is that your situation does not allow the level of involvement. So, I think you have to be very careful in explaining your situation. I think this kind of things happen a lot when people just assume something about the other one and of course there can be misunderstandings because of the expectations or the assumptions."

Factors related to the guardianship addressed by the interviewees have been summarized in Table 28.

Table 28. Factors related to Guardianship Addressed in the Interviews

<b>Factors Related to Guardianship Addressed in the Interviews</b>	<b>Impact on Cyberbullying</b>
Mandatory training on code of conduct	Decreases.
Ambiguity in organizational policies in the wake of mergers and acquisitions	Increases.
Monitoring of communication logs by the organization	Decreases.
Failure by the organization in responding to and coping with negative behaviors	Increases.
Managers overriding and not complying with organizational policies	Increases.

Distrust to the organization due to preferring cyberbullies' performance over their negative behaviors and consequences on victims	Increases.
Favoring cyberbullies due to their good relationships with the top management	Increases.
Toxic organizational or team culture	Increases.
The dominance of national culture over the organizational culture	Increases.
Leaders' interpersonal skills in coping with negative behaviors and their role as an effective mediator	Decreases.
Role of peer support in the identification of negative behaviors	Decreases.

### 5.5.3 Communication Medium

In GVTs, electronic media, which are used for communication, coordination, and collaboration, and how they affect the perceptions of GVT members become a key factor that needs to be evaluated by team leaders and organizations. Interviewees addressed the benefits and disadvantages of the media they used in their GVTs. One interviewee indicated how people could be more demanding on instant messaging (IM) and emails.

"Instant messaging, IM, definitely adds a level of efficiency when during all these different places. You can't look out of your office and see if someone's at their desk or if you have a quick question. It makes things easier with the Skype. You can see their status, so if they're in a call or whatever, it's very helpful, but I will also say that it does cause problems. Because there's a sense if someone shows available and you IM them, and they don't immediately respond, people get irritated. Or I've noticed that people tend to almost be more demanding in IMs or even emails instead of asking, "Hey, can I have some help, hey I need this." And I sometimes feel like these amazing tools that make our job so much more efficient, but kind of diminish some basic nice communication and that I try to be cognizant of that, but even I'm guilty of it at times for sure."



Therefore, some GVT members tended to be less restrained on electronic communication by demanding more and in a direct way. Besides, they ignored messages, although it was possible for the sender to see this person is available. Therefore, it was another frustration on the sender's side since it gave the impression of being ignored. In this case, the online disinhibition effect was present in two contexts. One was demanding more on electronic media than face-to-face communication, and the other was pretending not to be aware of senders' messages and requests.

She also detailed the advantages and disadvantages of virtual communication. Although apps such as Skype provide three options to communicate (video call, audio call, and chat), they also create more visibility and accessibility owing to their features.

Another interviewee addressed how people tend to be nicer while "being recorded" during a video conference. Recording signaled an organizational control, and conference video attendees were kinder to each other when they knew it is recorded.

"...Because of the nature of a video conference and when it's recorded everybody's a lot nicer. but if it's just a general discussion sometimes people will get little comments or little snippy."

In the case above, the online disinhibition effect was apparent when GVT members felt a higher level of freedom during unrecorded sessions.

Although face-to-face communication on video chats and conferences (which are considered as richer media) and the immediacy of feedback have been considered to be less prone to conflicts and cyberbullying, one of the interviewees thought the other way. Indeed, she thought that delay in communication might have benefits.

“Face-to-face actually caused more problems, but even still, I would avoid IM as I would pretend I didn't see them and such.”

Another interviewee mentioned the video meetings positively by not referring to the cyberbullying. In general, interviewees stated that they prefer audio and video meetings over emails in their communication with team members in other countries.

"Now, there is a new tool called Microsoft Teams, and people are starting to use this, but the majority of communication is made via Skype. It is more sort of calling and meetings where we are sharing desktop or presenting PowerPoints and so on, and we try to have at least twice a month sort of video meetings to create this sense of collaboration and humanization of the process, so to speak."

However, time differences were usually one of the main problems that hindered meetings on video calls and caused serious delays in the communication and decision process.

"I've worked in a group that was predominantly international. That was last summer. Before that, I was working on another [A multinational computer hardware company] project. They had a team distributed throughout the US for the most part. The customer I was supporting had a fair amount of people in America, and some were in India. Another language isn't the only challenge; it's also scheduling time. Let's say somebody reports a problem. They reported to me at 4 o'clock. I find out about it at 4:00 in the afternoon my time. The testers are in India. Wait till 8 am, the next morning to test because that's the end of their workday. Because we start at midnight in my time if I have an American-based tester. If the tester is in a different time zone, you could actually be wasting their entire day. If I had to talk to people in India, I need to do before 8:00 in the morning and even 8:00 in the morning is late for them. So that's a challenge."

Some interviewees used emojis and symbols in their GVT communications. As stated below, the interviewee stressed the need to have more clarification with the

teammates who think that there was a conflict or problem. She and other teammates used GIF images to soften the communication and make it more humane.

“I use emojis with my team in the States. We use GIFs. We do those to either lighten it, or I will say, for my direct team, if someone is harsh or if they think I'm harsh, we just tell each other, “Hey, that was kind of harsh and well, thanks for letting me know.” So, we try not to take it so personally, but it's more difficult with the team members that are not physically around. You can't just walk up and say hey that was kind of harsh.”

Communication medium characteristics addressed by the interviewees have been summarized in Table 29.

Table 29. Summary of the Results related to the Communication Medium Characteristics

<b>Communication Medium Characteristics</b>	<b>Impact on Cyberbullying</b>
Demanding more on instant messaging and emails (Online disinhibition effect)	Increases.
Ignoring messages although they are seen by the receiver.	Increases.
Electronic media increase the visibility and accessibility.	Increases.
Video conference attendees being ruder when conference is not recorded.	Increases.
Preferring audio and video meetings over emails	Not related.
Time differences hindering video meetings and causing communication and decision delays	Not related
Using emojis, symbols, and GIFs to compensate for the lack of cues	Decreases.

#### 5.5.4 Team Diversity

Cultural issues, as it was dominant in Study 1, prevailed in most of the interviews in Study 2. Since GVTs are recognized for their global nature and hence cultural

diversity, cultural issues constitute one of the important elements that need to be carefully considered. Interviewees pointed out the fact that team leaders and members, as well as other executives and HR officials, should always keep in mind that cultural differences are always present and prevalent due to the nature of GVTs. In this regard, an American project manager expressed her concerns and lessons learned both by herself and her South American counterpart as follows:

"I certainly didn't want to lose this project with Argentina, so we decided, I don't want to take credit for it, we, as a team, decided to have a phone call and in that conversation, we both shared our grievances, and that's when I learned that the approach of communication exclusively was offensive to him. And he admitted about my personality that he thought he knew Americans, so he didn't feel that I fit in and I don't know anything about people from Argentina. So, that was my fault too because I didn't know. I didn't do enough research to know that they're very personable, and they like to interact at almost social level more so than a business level. So, once we cleared the air, I asked him how he would like to interact. Quite frankly, he always starts with IM, and I'm fine with that. But also, I told him, "If I'm busy, is it okay to tell you that I'm busy, and I promise you we'll get back." And it took a while to build that trust, but we're about a year, and he and I are very close."

As is seen in the quote above, it was also important to choose the right communication medium with which the teammates are comfortable. Cultural differences, as well as personal attitudes, assumptions and beliefs (deep level diversity elements), are strong determinants of how team members prefer to communicate online.

Another interviewee also expressed how it is of high importance to be aware of cultural differences, and act accordingly.

"While I am talking to a person outside the USA, for instance, from Southeast Asia or Turkey, I know why this person expressed in that way. I consider the

cultural interpretations. It may be rude to an American. As I worked in many global teams, I know people's expectations. For instance, Asians are very formal. But talking to an American, it may be less formal. So, you need to be more flexible in communication. I think all team members are on the same page.”

The impact of cultural diversity in GVTs becomes more complicated with the addition of more countries, cultures, and subcultures. Thus, the significance of getting to know teammates and their cultures becomes more apparent. An interviewee detailed his experience with Asian cultures as follows:

“Especially, Asian cultures are silent. Conversations are not that effective. Messaging is better. They may not ask correct questions during conversations, or they do not encourage them to ask questions. I don't know if it is related to respect. They are not interactive in video conversations. I talk a lot, and I like talking. Therefore, I expect the same from the counterpart. They nod or smile most of the time. I become unsure whether they really understood me. There have not been any conflicts and escalation. But I have frustration on my part. I cannot figure out if they really understood me. In emails, we don't have problems.”

Although the quote above is not related to cyberbullying per se, it is of importance to point to the awareness of other teammates' cultures. Sometimes, cultural differences are reflected in a more extreme way, such as stereotypes against a nation or ethnicity, and racism. A Brazilian interviewee detailed how a cyberbully in a country berated the victim who will be appointed as the new manager to another country's team, which is a part of a global project:

“One person tells the whole team and shows a picture of a monkey saying, “This is our new manager. This monkey is coming from Brazil.” But this guy, he is experienced, so he is a senior. When someone is aggressive, usually it is because he's trying to protect. Because this person is feeling so much fear that they prefer to attack. He feared of something, or he was thinking this person is not good enough to be here working with them. So, the organization intervened in this one

to make him retire because he was close to retire. I think it is more related to nationality rather than the place.”.

In the quote above, the interviewee also tried to figure out the reason why the cyberbully humiliated the new manager by showing the picture to other coworkers. Besides, the quote shows a serious problem most victims encounter: the ineffectiveness of organizational intervention. Accordingly, the organization’s method chosen to deal with the cyberbully was most probably far from discouraging future cyberbullies.

Cultural elements also affect GVTs in unexpected ways. An American interviewee conveyed her conversation with a UK-based talent manager as below:

"I was just chatting last night with one of my UK-based talent managers, talent acquisition manager who was telling me about a situation in India where she had to fire probably one of her better recruiters because she's a woman and in the caste system that they're operating in India was not a valued member of society. And the male general managers of that particular location had absolutely no use for her and would not give her the time of day, so she was not able to be effective in the role that she's been hired for. And, therefore, they let her go as opposed to dealing with a particular issue that was at hand."

In this situation, the problem was not directly related to a problem that occurred in a GVT. However, the female member who was dismissed was a GVT member. Gender harassment against her originated from her managers in her country. The dissatisfaction of her managers with her sociocultural position, not with her job performance, created a pressure on the team leader of her GVT. Consequently, the team leader who is in the UK had to discharge her. The politics involved in workplaces create serious problems, and it may be more complicated as it is in this case. Although all team members may not be

aware of that kind of issues, this case shows how significant it is for team leaders to be alert and considerate about very peculiar cultural factors.

A very interesting finding that Study 1 did not reveal is as regards the respect towards same-nationality managers. It is not possible to generalize this finding. Nevertheless, this situation poses an important heads-up for organizations to keep in mind when they are creating GVTs and recruiting members and leaders.

“We got also another situation, but it didn't happen with my team. The company was hiring foreigners in Russia because the Russians were not respecting Russian managers because they look at Russian managers as their equals, and they could not accept someone from Russia, giving them orders, so the company started to look for people who Russians respect more, someone that they could respect rather than themselves. It was a really interesting situation.”

Another issue similar to the situation above was how some country GVT members might see leaders and members from more developed countries. An interviewee from Mexico stated that people in his teams might consider American team leaders more competent. However, he also explained that this is not related to any conflicts. This mindset, in particular in less developed countries, could be an implicit mechanism that reduces the risk of conflicts and cyberbullying against members of more developed countries. However, it may also pose a risk for tolerating cyberbullying directed by members of more developed countries.

“There's just one person per country leading. There are more people involved but three leaders. I am under the impression that still in Latin America, we are looking at the big boss, USA. But I don't want to put it as a conflict. You know it's just a situation that I think in this project. We are looking at our American collaborator just unconsciously as a sort of main voice in the team. It has to do

with the influence and the economic power. Because the influence in the USA is very big, as you know, but I don't think I would mention that as a conflict.”

Besides cultural diversity, deep-level diversity regarding the personal attitudes and beliefs was addressed by one interviewee as quoted by one interviewee above. Time differences and language barriers were other two factors interviewees articulated mostly as the causes of conflict and cyberbullying behaviors as well as ineffective team collaboration. Although these two factors could be linked to surface-level diversity, they are the direct consequences of operating within a global environment. Interviewees did not address other diversity factors such as age, gender and experience.

Team diversity elements addressed by the interviewees have been summarized in Table 30.

Table 30. Summary of the Results related to Team Diversity

<b>Factors related to Team Diversity</b>	<b>Impact on Cyberbullying</b>
Need to select communication media based on other teammates' cultural background, personal attitudes, assumptions and beliefs	Decreases.
Being aware of cultural differences and acting accordingly	Decreases.
Stereotypes against a nation or ethnicity, or racism	Increases.
Ineffectiveness of organizational intervention in case of cyberbullying behaviors related to diversity elements	May increase
Probability of cyberbullying behaviors against same-nationality managers	Increases.
Probability of cyberbullying behaviors directed towards less developed country team members by more developed country members or leaders	Increases.
Deep-level diversity (e.g., personal attitudes, beliefs)	Increases.



## 5.6 Discussion

Interviews with business GVT leaders and members contributed to further understanding of the problems with regard to cyberbullying. Study 2 brought about more evidence to support and substantiate the constructs and relationships within our theoretical framework based on RAT and revealed some interesting situations that were not present in Study 1 cases.

### *5.6.1 Underlying Causes of Cyberbullying Behaviors*

Underlying causes of cyberbullying behaviors have been addressed by most of the interviewees. Although it was not always possible to explicate on the motives of cyberbullies, they were able to specify some causes, including target suitability elements. Cyberbullies conducted their negative behaviors to acquire a value of gaining a competitive advantage in their teams. Upward bullying was also present in one of the cases, and the cyberbully considered her/his team leader as an inhibitor in front of his/her career development path. In addition to acquiring a work-related value, cyberbullies offended to gain non-work-related value, such as sexual enjoyment. Accessibility was again a major issue for GVT members. Cyberbullies had the advantage of accessing easily to other GVT members or compromise the shared online resources. This issue arises the need for organizations and GVT leaders to regulate the use of electronic media as well as more active monitoring and intervention strategy.

In Study 2, collective attacks by the whole nationally collocated teams against other collocated teams revealed that cyberbullying behaviors might not be confined to individuals or small groups, but also large groups and national teams as a whole. It is

common to have national teams in GVTs, and some GVT studies also had student samples with collocated teams (e.g., American and Canadian teams, Sarker and Sahay, 2003). As observed in our interview data, almost all members of a national team might target another national team as a whole. Thus, target suitability elements can be extended to a national team level, not necessarily focused on an individual or group level. For instance, a national team's members might have apparent characteristics (e.g., working style, cultural features) that could attract another team's members to intimidate this national team repetitively.

#### *5.6.2 Lack of Capable Guardianship*

Study 2 helped us further clarify the role of capable guardians in GVTs. Training activities on code of conduct and ethical business practices are common, especially in larger multinational corporates. These activities were considered by interviewees as one of the effective methods which ensure employees to be more aware of the consequences of any interpersonal conflicts and aggression on individuals, teams, and organizations at the very beginning of their recruitment. However, they cannot substitute for other organizational governance tools and leadership skills. Besides, it is of high importance to establish the rules and hierarchical structure in the very beginning when a GVT is formed. Ambiguity and a lack of direction in the distribution of responsibilities and tasks could leave GVT leaders and members on shaky ground with many uncertainties. Some interviewees explained the disconnection between organizational policies and the authority of the GVT leader. While GVT leaders might be deprived of necessary

authority in their teams, in some cases, they overrode the organizational policies by imposing their rules.

Study 2 had additional insights with regard to organizational governance and regulations in the case of mergers and acquisitions. In the case of radical transformations such as mergers in an organization, increased uncertainties could bring about novel challenges that should be handled by the organization and managers more carefully. In the interviews, empathy, and sympathy among peers, as well as the team leader's efforts as a mediator to prevent further disputes and conflicts among members were worth mentioning as effective capable guardianship methods. As another capable guardian, team culture was dominant across the interviews besides organizational culture. The reason for team culture emphasis rather than organizational culture could be the fact that GVT was our main subject, and the interview questions emphasized this key concept repeatedly.

### *5.6.3 Communication Medium Related Characteristics*

As expected and in parallel with the interview guide and questions, all interviewees discussed electronic means of communication and collaboration. Time differences and language barriers were two main factors that contributed to the negative impact of communication media on aggressive and cyberbullying behaviors. Interviewees generally indicated that they preferred video conferences over emails. Some of the interviewees stated that instant messaging on Microsoft Teams is an effective way of communication in particular with the GVT members whose English fluency in speaking is not good. While instant messaging and emails helped those non-native speakers, they

were one of the effective ways to ignore teammates. Furthermore, these applications increased the visibility and accessibility of GVT members which made them more prone to cyberbullying behaviors.

Interviewees generally indicated that they preferred video conferences over emails due to their advantages in receiving immediate feedback and observing social cues. However, they were still not free from the online disinhibition effect. This effect was prevalent in three of the interviews, especially in video chats and conferences. Furthermore, an interesting finding was the increased online disinhibition effect when video meetings are not recorded.

#### *5.6.4 Team Diversity*

Study 2 results revealed that working styles between collocated national teams might be one of the reasons that lead to cyberbullying in addition to the cultural differences and interpretations, lack of immediacy of feedback, and other issues. Besides, the willingness to obey the leader and members from more developed or different countries was another interesting situation that emerged. In some cultures, some of the team members may not respect the team leader who is from the same country. Therefore, their disrespectfulness might lead to cyberbullying directed by subordinate members towards managers.

Conflicts and cyberbullying that originated from cultural diversity were prevalent across most of the interviews, whereas other diversity types were not mentioned with any regularity by the interviewees. The culturally heterogeneous structure of GVTs overweighed other diversity elements such as age, gender, and experience.

## 5.7 Implications

Study 2 contributed valuable insights into the establishment of the GVT cyberbullying instrument, which is detailed in Chapter 6. More importantly, it provided unique insights regarding the cyberbullying behaviors in GVTs, which are not possible to learn through the implementation of a survey or analysis of secondary data.

In terms of managerial implications, first of all, Study 2 revealed findings as regards the importance of initial ethical training. However, organizations cannot totally rely on ethical training alone. They need to supplement them with reminders about organizational policies having deterrent and dissuasive provisions. Furthermore, trade-offs and a balance between organizational policies and leadership need to be monitored closely by higher-level managers and HR officials. The frustration about and distrust on organizational interventions might have severe consequences for individuals and teams.

Second, any transformational process affecting the whole organization needs to be managed carefully. Those transition periods could provide motivated offenders with more opportunities to cyberbully their teammates due to the ambiguity in organizational policies or the existence of two or more policies during and after a merger and acquisition.

Third, teams might develop cultures and working styles different from the organization itself. This team culture may have many similar aspects, whereas it may differ substantially from the organization. Thus, GVT leaders need to monitor relationships among GVT members and promote practices that contribute to team collaboration.

## **5.8 Limitations and Future Research**

As with all research, there are some limitations in our research. Nevertheless, these limitations could also lead to new research opportunities, which are also discussed in this section.

The number of interviewees in Study 2 was fifteen, which may be considered a low sample size. In total, twenty interviews were scheduled. However, saturation was achieved after fifteen interviews when no new codes and themes seem to emerge. Considering this saturation, and the fact that people are hesitant in talking about and conveying their negative experiences, and accordingly the low number of interviewees in workplace cyberbullying studies (e.g., nine HR professionals, West et al., 2014; four survey respondents who consented for the interview, Blizard, 2016; eight victims of workplace cyberbullying, Pickens, 2017), we can conclude that this number is acceptable.

## **5.9 Conclusion**

Study 2 investigated how target suitability elements and lack of guardianship provided opportunities to cyberbully, how communication medium characteristics affect these opportunities and victimization, and the role of diversity. Following Braun and Clarke's (2006) qualitative thematic analysis methodology, four higher-level themes, (1) underlying causes of cyberbullying behaviors, (2) guardianship, (3) communication medium, and (4) team diversity, were identified. Implications of these findings were discussed.

The findings of this study and Study 1 lay the foundation along with the literature review to build a GVT cyberbullying model and instrument that can be used for the positivist testing of our theoretical model.

## CHAPTER VI

### STUDY 3: GLOBAL VIRTUAL TEAM POSITIVIST STUDY

#### **6.1 Objectives of Study 3**

The primary purpose of this chapter is to test the theoretical model outlined in Chapter 3 with a positivist study. In order to achieve this main objective, this chapter will explain how Global Virtual Team (GVT) Cyberbullying Instrument was developed based on previous studies (Study 1 in Chapter 4 and Study 2 in Chapter 5) and will elaborate on the methodology used to develop and validate this cyberbullying measure. Based on the first two qualitative studies and previous literature on cyberbullying, cyberincivility, and global virtual teams, a “Global Virtual Team (GVT) Cyberbullying Instrument” was developed. Following the pre-test and pilot studies, we distributed the survey to 206 business GVT members via Prolific, a UK-based survey website, and evaluated the results. The survey scales were assessed to assure they were reliable, measured their respective constructs, and demonstrated convergent and discriminant validity so they could be used to test the research hypotheses.

In the following sections, we revisited the research model and described the methods used in testing the research hypotheses. Sections and sub-sections of this chapter include discussion of the research model, research methodology, instrument design, pre-testing and pilot study of the instrument, the final version of the instrument, implementation of the full study including descriptive statistics, measurement model and



structural model, discussion of the results with their theoretical and managerial implications, and limitations and future research directions.

## 6.2 Research Model

The research model that was tested for Study 3 is illustrated in Figure 8. The construct “Team Development Stage,” which was detailed in “3.6 Virtual Team Development Stages” was removed due to three reasons.

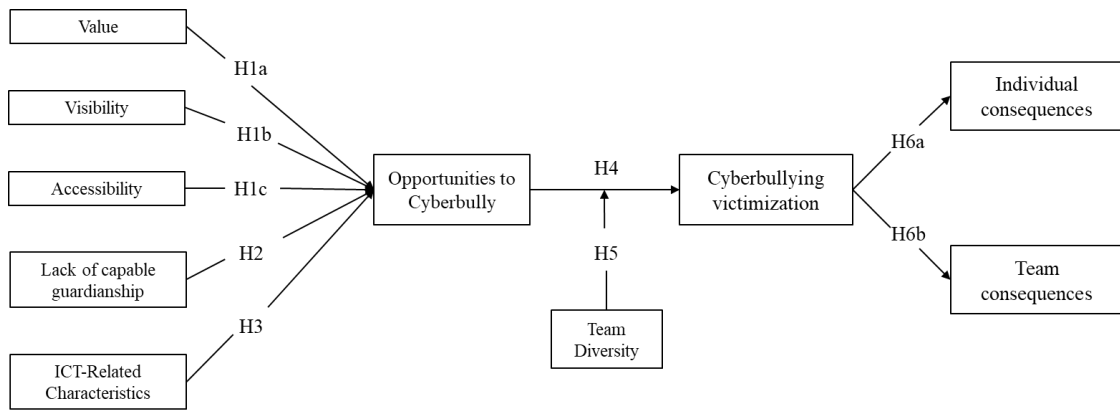


Figure 8. Research Model for Study 3

First, a longitudinal study was not possible to conduct, taking into account the challenges in recruiting GVT members who experienced cyberbullying. Second, researchers in previous studies that investigated GVTs observed the development stages themselves based on the characteristics of each stage (Sarker and Sahay, 2003; Ayoko et al., 2012). GVT members, whether they are in student or business teams, may identify development stages subjectively. Third, these stages are not always sequential. Accordingly, GVTs may retreat to a previous stage or may skip a stage. In addition to team development stages, the construct name “Communication Medium Characteristics”

has been changed as “ICT-Related Characteristics” to reflect the importance of coordination and collaboration purposes besides communication purposes.

Hypotheses have been built upon the propositions detailed in the theoretical framework in Chapter 3. Hypotheses to be tested are as follows:

H1a: The perceived value of GVT members as targets would increase the opportunities to cyberbully.

H1b: The visibility of GVT members as targets would increase the opportunities to cyberbully.

H1c: The accessibility of GVT members as targets would increase the opportunities to cyberbully.

H2: Lack of capable guardianship would increase the opportunities to cyberbully.

H3: ICT-related characteristics, lack of immediacy of feedback, bullying messages rich in symbol variety and online disinhibition effect, would increase the opportunities to cyberbully in GVTs.

H4: Opportunities would lead to the cyberbullying victimization.

H5: GVT diversity would increase the impact of opportunities on cyberbullying victimization in GVTs.

H6a: Cyberbully victimization would result in victims’ having lower levels of job satisfaction, lower job performance, and higher intention to quit the team.

H6b: Cyberbully victimization would result in lower team performance.

### **6.3 Research Methodology**

The field survey methodology is regarded as an appropriate methodology to conduct this study. Survey research is commonly utilized in the information systems field (Palvia et al., 2015). Since it is necessary to get real-world knowledge about GVTs, it would be difficult to design or replicate this research in laboratory settings. Compared with other methodologies with controlled settings, such as laboratory and field experiments, survey research involves examining a phenomenon in a wide variety of natural settings (Pinsonneault and Kraemer, 1993). Therefore, this method has the potential to produce generalizable results that can be applied to a larger population.

Study 3 has been built upon qualitative studies, which were detailed in chapters 4 and 5. First, a GVT cyberbullying instrument was designed. Its constructs and items were developed based on Studies 1 and 2 as well as extant literature (see section 6.4). Then, the instrument was tested in two consecutive steps, pre-test (see section 6.5) and pilot study (see section 6.6). After the refinement of items (see section 6.7), the instrument was finalized (see section 6.8). The instrument was distributed on the Prolific.co website to GVT members who experienced or witnessed cyberbullying in the last three years. Finally, 206 responses were obtained and analyzed using SmartPLS, which is a software with a graphical user interface for variance-based structural equation modeling (SEM) using the partial least squares (PLS) path modeling method.

We preferred the PLS path modeling method for analysis of the survey data. There are three main reasons for choosing PLS for our analysis. First, our model consists of formative indicators for one latent construct, which is GVT diversity. PLS offers an

appropriate statistical technique that accounts for both reflective and formative indicators in the statistical model (Lowry and Gaskin, 2014). Second, although we investigated our model with a large qualitative data corpus in Study 1, this was the first quantitative analysis to test the relationships for the new measures within the framework of an exploratory study. PLS is a method suitable for an exploratory (building or testing a new theory) rather than a confirmatory study (Ainuddin et al., 2007; Lowry and Gaskin, 2014). Third, when the sample size is small (206 respondents in our sample), the analysis would be more reliable as compared to covariance-based-structural equation modeling (CB-SEM) (Lowry and Gaskin, 2014).

#### **6.4 Instrument Design**

Based on the findings of qualitative studies, Study 1 (Chapter 4) and Study 2 (Chapter 5), an instrument for GVT cyberbullying was developed. Furthermore, existing instruments such as Jönsson et al.'s (2017) 20-item CBQ (Cyberbullying Questionnaire) and 7-item CBQ-S (Short version of CBQ), and Farley et al.'s (2016) 17-item WCM (Workplace Cyberbullying Measure) were leveraged (see Appendix 1 for items included in these measures). In addition to workplace cyberbullying questionnaires, Lim and Teo's (2009) cyber incivility measures were evaluated, taking into consideration the overlapping behaviors across different conceptualizations of workplace mistreatment. If the extant literature also used the same or similar survey items, or items were borrowed from other studies, they have been specified in the tables within this section.

### 6.4.1 Target Suitability

Target suitability elements are perceived value, visibility, and accessibility, and their items are outlined below.

#### 6.4.1.1 Perceived Value

All perceived value items were derived from Study 1 and Study 2 (Table 31).

Table 31. Items for Perceived Value

What kind of incentive do you think the cyberbully pursues?
1. Cyberbully wants to outperform the victim.
2. Cyberbully wants to be the team leader.
3. Cyberbully thinks that the victim cannot be a good leader.
4. Cyberbully wants to acquire valuable information (e.g., contributions made by the victim on a shared document) from the victim. (Jönsson et al., 2017)
5. Cyberbully asserts cultural superiority over the victim.
6. Cyberbully wants to have fun without considering specific task-related outcomes or benefits. (Cohen et al., 1981; Reynolds et al., 2011)
7. Cyberbully wants praise and respect from online peers (teammates or online friends who are not in the team). (Reynolds et al., 2011)
8. Cyberbully wants praise and respect from offline peers (with whom s/he meets in person as teammates, classmates, colleagues, or friends). (Reynolds et al., 2011)

#### 6.4.1.2 Visibility

All visibility items were derived from Study 1 and Study 2 (Table 32).

Table 32. Items for Visibility

1. The victim is very active in video conferences or group conversations.
2. The victim is a good performing team member.
3. The victim confronted the cyberbully (e.g., the victim said the cyberbully should improve, said the cyberbully is doing inappropriate things, tried to end the conflict by talking to the cyberbully, etc.)

### 6.4.1.3 Accessibility

All accessibility items were derived from Study 1 and Study 2 (Table 33).

Table 33. Items for Accessibility

1. Cyberbully can access the victim’s personal information, pictures, and videos on social networking sites (e.g., Facebook, Instagram, LinkedIn) as a friend.
2. Cyberbully knows the victim’s contact information such as phone number, e-mail address, Skype ID, etc., and, therefore, can access the victim easily.
3. The team collaborates on a shared file, such as a Google doc file. Thus cyberbully knows about all contributions made by the victim.

### 6.4.2 Lack of Guardianship Items

All of the lack of guardianship items were derived from Study 1 and Study 2.

Guardianship is composed of organizational governance, organizational culture, leadership, and peer support (Table 34).

Table 34. Items for Lack of Guardianship

<b><u>Organizational Governance</u></b>
1. The organization intervened in a short time to eliminate cyberbullying behavior.
2. Cyberbully was removed from the team by the organization.
3. Cyberbully discontinued negative behavior after the organizational intervention.
4. The organization notified the victim or the team to handle the problem themselves.
5. Organizational regulations are effective in overcoming the problems caused by the cyberbully.
<b><u>Organizational Culture (Fey and Denison, 2003; In line with data from interviews)</u></b>
1. Information is widely shared so that everyone can get the information when it is needed.
2. The leaders and managers (including coaches) follow the guidelines that they set for the rest of the organization.

<b><u>Leadership (Formal or informal)</u></b>
1. Our team leader is ineffective in managing the team and cannot deal with the conflicts and cyberbullying.
2. The team leader's effective intervention in the cyberbullying case was successful.
<b><u>Peer support</u></b>
1. The victim looked for peer support from other team members.
2. At least one team member supported the victim.
3. Although the victim did not look for peer support, at least one teammate expressed support and sympathy.
4. Peer support reduced or eliminated cyberbullying behavior.

#### 6.4.3 ICT-Related Characteristics

ICT-related characteristics were identified as lack of immediacy of feedback, symbol variety, and online disinhibition effect based on Study 1 and Study 2 findings (Table 35).

Table 35. Items for ICT-Related Characteristics

<b><u>Lack of immediacy of feedback</u></b>
1. Cyberbully sent messages while the victim was not available.
2. Cyberbully imposed opinions without waiting for the replies from the victim.
3. Cyberbully never replied to the victim's messages or replied late.
4. Cyberbully did not include any responses concerning the topic that the victim mentioned.
5. Cyberbully generally did not use video chat or electronic conferences.
<b><u>Symbol variety</u></b> (A bully message rich in symbol variety, and different interpretations by the members due to the lack of social cues)
1. Cyberbully used words and sentences with capital letters to express aggressive behavior.
2. Cyberbully used many punctuation marks, such as exclamation points, to express aggressive behavior.

3. Cyberbully’s messages included many emojis (e.g., different faces) and symbols.
4. Cyberbully’s messages included a lot of punctuation and grammar errors so that it was not possible for the victim to understand properly.
5. The victim could have understood differently if s/he communicated with the cyberbully in person.
<b><u>Online disinhibition effect</u></b>
1. Cyberbully behaved negatively during video chats and conferences.
2. Cyberbully stated negative comments against the victim in emails and messages whereas did not express such comments in video chats and conferences.

#### 6.4.4 Opportunities

All opportunity items were derived from Study 1 and 2 (Table 36). Our extensive search on extant criminology, sociology, psychology, and information systems literature did not produce any results with regard to the opportunities.

Table 36. Items for Opportunities to Cyberbully

1. The cyberbully found circumstances that can help bully the victims.
2. The cyberbully found opportunities to bully the victims.
3. The cyberbully found many reasons to bully the victims.
4. The cyberbully was able to find the right conditions to bully the victims.

#### 6.4.5 Team Diversity

Team diversity items were obtained from Pinjani and Palvia (2012). However, to assure parsimony and relevance with the GVT cyberbullying, only the items which were identified in our Study 1 and Study 2 were included. Items 1 and 3 are related to the surface-level diversity, item 2 to the cultural diversity, items 4, 5, and 6 to the functional diversity, and item 7 to the deep-level diversity (Table 37). All seven items were placed under the same latent construct, and they were conceptualized as formative items because



they were not interchangeable and employed different themes (Jarvis et al., 2003; Petter et al., 2007). Dropping any of the measures would affect the meaning of the construct (content validity) because they measured different aspects of team diversity.

Table 37. Items for Team Diversity

1. Members of my team are similar in terms of age.
2. Members of my team are similar in terms of ethnic and cultural backgrounds.
3. Members of my team are of the same gender.
4. Members of my team are similar in terms of functional knowledge.
5. Members of my team are similar in terms of educational background.
6. Members of my team are similar in terms of length of organizational experience.
7. Members of my team are similar in terms of personal values.

#### 6.4.6 Cyberbullying Victimization

Cyberbullying victimization reflects cyberbullying behaviors committed by motivated offenders in GVTs against other teammates who are targets and victimized as a result of these behaviors (Table 38). All the items were retrieved from Study 1 and 2. If previous literature used these items, they were provided in Table 38.

Table 38. Items for Cyberbullying Victimization

Cyberbully or cyberbullies:
I. Ignored the victim
1. Ignored victim's opinions (Privitera and Campbell, 2009; Lim and Teo, 2009; Jönsson et al., 2017)
2. Did not take into account the victim's efforts and contributions (Privitera and Campbell, 2009), although cyberbullies communicated with others.
3. Did not listen to the victim by trying to control all the tasks carried out in the team.
4. Stated explicitly or implied that they did not want to work with the victim.
5. Blocked the victim from contributing to project tasks. (Qualitative data)

6. Did not consider the victim's own personal conditions (e.g., victim's own schedule, sickness, serious family matters).
<b>II. Attacked the victim</b>
7. Said or sent insulting, offensive, abusive, or rude remarks to the victim. (Privitera and Campbell, 2009; Lim and Teo, 2009; Jönsson et al., 2017)
8. Attacked the victim, humiliated, belittled, or said hurtful things to the victim. (Lim and Teo, 2009)
9. Sent threatening messages to the victim. (Jönsson et al., 2017)
<b>III. Excluded the victim from the communication media</b>
10. Excluded the victim from the media through which the team communicates and collaborates (Privitera and Campbell, 2009; Farley et al., 2016; Jönsson et al., 2017)
11. Established subgroups in the team and worked independently from the victim.
12. Excluded the victim from the media through which the team socializes (e.g., social networking sites, communication that is not related to the tasks). (Farley et al., 2016)
<b>IV. Sexually harassed the victim (Harasser may be either male or female.) (Ritter, 2014)</b>
13. Sent sexually inappropriate, offensive, or rude messages.
14. Sent sexually inappropriate, offensive, or rude pictures or videos.
15. Insulted the victim by name-calling or belittling with emphasis on gender-based stereotypes.
<b>V. Criticized the victim's work performance unfairly</b>
16. Criticized or belittled the victim's work performance, capabilities, and outputs without reason.
17. Gave low peer evaluation scores to the victim, although the performance was higher.
<b>VI. Ignored the diversity in the team and behaved negatively accordingly</b>
18. Did not consider the victim's local conditions (e.g., time zone differences, language barriers, culture).
19. Made inappropriate and disrespectful comments or jokes about the victim's culture, country, or religion.
20. Made inappropriate and disrespectful comments or jokes about the victim's age, gender, race, or ethnicity.
21. Stated things rudely because of the victim's cultural background.
<b>VII. False statements about the victim</b>
22. Made false statements about the victim. (Privitera and Campbell, 2009; Farley et al., 2016; Jönsson et al., 2017)

#### 6.4.7 Individual Consequences

Study 1 provided with a wide variety of individual consequences which are related to GVT cyberbullying (Table 39). Besides, some items were taken from Pinjani and Palvia (2012).

Table 39. Items for Individual Consequences

<u>Intention to Quit</u>
1. The victim wants to leave the team and join another team. (Qualitative data)
2. The victim wants to leave the team and the project totally. (Qualitative data)
<u>Job satisfaction</u>
1. The victim's morale is high in this team (Pinjani and Palvia, 2012).
2. The victim enjoys being a part of this team (Pinjani and Palvia, 2012).
3. The victim does not enjoy participating in this project. (Qualitative data)
4. The victim feels insignificant and hurt. (Qualitative data)
5. The victim is impatient for the project to finish. (Qualitative data)
<u>Job performance</u>
1. It is very challenging for the victim to concentrate on tasks and complete them. (Qualitative data)
2. The victim cannot contribute to the project because the efforts are not welcome. (Qualitative data)

#### 6.4.8 Team Consequences

Items from the study by Pinjani and Palvia (2012) were used due to their validity and concise wording (Table 40).

Table 40. Items for Individual Consequences

1. The team is meeting its business objectives (Pinjani and Palvia, 2012).
2. The completion of teamwork is generally on time (Pinjani and Palvia, 2012).
3. The team is producing work of the highest quality (Pinjani and Palvia, 2012).

## **6.5 Pre-test**

After the preparation of items, pre-test and pilot-test need to be conducted for field-based validation of research and to address the content validity of items, and clarity and wording problems. Careful pretesting of instruments with practitioners in the field can serve as a reality check to test how the conceptualization of the problem matches the actual experience of the practitioner (Malhotra & Grover, 1998; Grover, 2000). Five faculty members, six doctoral students, and two project managers tested the instrument.

Based on the recommendations received from these thirteen individuals, the instrument was refined. Revisions made in the instrument included (1) rewording and shortening of some items to minimize confusion, (2) removal of attention-catching/trap questions and inclusion of questions to confirm if respondents are honest in indicating that they were GVT members, (3) reducing the length of pages especially for respondents who will reply on their smartphones, and (4) rearrangement of Likert scales. One item was removed because it asked the victim's efforts to acquire support from her/his peers, not the organization's efforts as a guardian. It was the lack of guardianship item, which is "Victim looked for peer support from team members."

## **6.6 Pilot Study**

The use of a pilot study is recognized as a critical part of a rigorous scale development methodology. A pilot study consists of data collection and analysis from a small set of subjects, which serves as a guide for the main study (Glass, 1997). A particular advantage of a pilot study is that it gives a preliminary warning about where the main research could potentially fail and where the possibility of research protocol

may not be followed correctly, or whether suggested methods or instruments are inappropriate or complicated (van Teijlingen & Hundley, 2001).

The pilot study was administered on Prolific before the collection of full survey data by collecting responses from 29 GVT members who had experienced cyberbullying in the last three years in at least one of their GVTs. Analysis was conducted on SmartPLS software (see the section 6.10).

Table 41 reports the reliability measure, Cronbach's alpha, for various variables in the instrument. All reliabilities except visibility were adequate and exceeded or approached 0.700. Because the visibility does not have a reliability lower than 0.5, we decided to include its items and investigate it further in the full survey. Low Cronbach's Alpha value could be attributed to the small sample size. The pilot study yielded significant information about the instrument which is described in the following section.

Table 41. Descriptive Statistics

<b>Construct</b>	<b>Number of items</b>	<b>Cronbach's Alpha</b>
Value	9	0.878
Visibility	3	0.595
Accessibility	3	0.680
Lack of Guardianship	10	0.854
ICT-Related Characteristics	11	0.765
Opportunities	4	0.724
Cyberbullying Victimization	16	0.869
Team Diversity	7	Formative
Individual Consequences	7	0.690
Team Consequences	3	0.883

## 6.7 Refinement of the Instrument after Pilot Study

For the final instrument, a one-minute prescreening survey was created, which is composed of two questions asking whether respondents were a member of GVT in the last three years, and if they experienced or witnessed cyberbullying. The introduction section of the survey was rearranged to highlight the requirements of taking the survey.

A number of items were reworded to enhance their interpretation by non-native English speakers and capturing the correct response from a very diverse pool of survey takers. An additional indicator (MEDIUM 11) was added to ICT-related characteristics to strengthen the online disinhibition subconstruct.

## 6.8 GVT Cyberbullying Instrument

Following the pre-test and pilot test stages, the GVT cyberbullying instrument was finalized. The final constructs and their items are described in the following subsections. Revised or added language in the items have been highlighted as italics.

### 6.8.1 Target Suitability

Target suitability elements are composed of perceived value (VALUE – 9 items), visibility (VISIB – 3 items), and accessibility (ACCES – 3 items) (Table 42).

Table 42. Items for Target Suitability

ITEMS	CONTENT
VALUE	The cyberbully's behavior occurred because s/he:
VALUE1	Wanted to outperform the victim.
VALUE2	Wanted to be the team leader <i>or being promoted in the team.</i>
VALUE3	Thought that the victim <i>is not</i> a good leader.
VALUE4	Wanted to <i>steal</i> valuable information from the victim.

<b>VALUE5</b>	<i>Had stereotypes about the victim (e.g., gender, age, race or ethnicity, religion) and/or expressed negative opinions about the victim.</i>
<b>VALUE6</b>	<i>Thought that her/his culture is superior to the victim's culture.</i>
<b>VALUE7</b>	<i>Wanted to have fun without considering any benefits for her/his success in the project.</i>
<b>VALUE8</b>	<i>Wanted to get praise and respect from her/his ONLINE peers (teammates or online friends who are not in the team).</i>
<b>VALUE9</b>	<i>Wanted to get praise and respect from her/his OFFLINE peers (face-to-face teammates, colleagues or friends outside the workplace).</i>
<b>VISIB1</b>	The victim was very active in video conferences or group conversations.
<b>VISIB2</b>	<i>The victim contributed a lot to the project.</i>
<b>VISIB3</b>	The victim confronted the cyberbully. (e.g., the victim said cyberbully should improve, said cyberbully is doing inappropriate things)
<b>ACCES1</b>	The cyberbully could access victim's personal information, pictures and videos on social networking sites (e.g., Facebook, Instagram, LinkedIn) as a friend.
<b>ACCES2</b>	The cyberbully knew victim's contact information such as phone number, e-mail address, Skype ID, etc., and therefore can access the victim easily.
<b>ACCES3</b>	The cyberbully knew about all contributions made by the victim because team collaborates on a shared file or a project management software.

### 6.8.2 Lack of Guardianship

Lack of guardianship has ten items in total. As justified in section 6.5, GUARD 9 (one of the peer support items) was removed after the pre-test. GUARD 1, 2, 3, 4, and 5 represent organizational governance while GUARD 6 and 7 represent organizational culture, GUARD 8 represents leadership, and GUARD 10 and 11 represent peer support (Table 43).

Table 43. Items for Lack of Guardianship

GUARD1	Organization / <i>project manager</i> intervened in a short time in order to eliminate the cyberbullying behavior.
GUARD2	Organization removed the cyberbully from the team <i>or dismissed her/him from the organization.</i>
GUARD3	Cyberbully discontinued negative behavior after the organizational intervention.
GUARD4	Organization notified the victim or the team to handle the problem themselves.
GUARD5	Organizational regulations are effective to overcome the problems caused by the cyberbully.
GUARD6	Information <i>with regard to the project</i> is widely shared so that everyone can get the information when it is needed.
GUARD7	The company executives and managers, and team leaders follow the guidelines that was set for the rest of the organization.
GUARD8	Team leader <i>is effective in dealing with the cyberbullying behaviors.</i>
GUARD10	At least one team member supported the victim.
GUARD11	<i>Peer support helped eliminate the cyberbullying behavior.</i>

### 6.8.3 ICT-Related Characteristics Items

ICT-related characteristics consist of eleven items. MEDIUM 1, 2, 3, and 4 represent lack of immediacy of feedback, MEDIUM 5, 6, 7, 8 represent symbol variety, and MEDIUM 9, 10, and 11 represent online disinhibition effect (Table 44).

Table 44. Items for ICT-Related Characteristics

MEDIUM1	Cyberbully sent e-mails and messages <i>when s/he knew that</i> victim was not available ( <i>e.g., during night, national holidays, sickness</i> ).
MEDIUM2	Cyberbully imposed her/his own opinions without waiting for the replies from the victim.
MEDIUM3	Cyberbully did not reply to the victim's e-mails and messages.
MEDIUM4	<i>Cyberbully replied but</i> did not reply to the topic or question that victim asked.



MEDIUM5	Cyberbully used words and sentences with capital letters to express an aggressive behavior.
MEDIUM6	Cyberbully used more-than-usual punctuation marks, such as exclamation points, to express an aggressive behavior.
MEDIUM7	Cyberbully's <i>inappropriate messages</i> included many emojis and symbols.
MEDIUM8	Cyberbully's messages included a lot of punctuation and grammar errors so that it was not possible for the victim to understand properly.
MEDIUM9	The victim could have understood <i>more positively</i> if s/he communicated with the cyberbully in person.
MEDIUM10	Cyberbully behaved negatively during video chats and conferences.
MEDIUM11	Cyberbully wrote rude and insulting things on emails and/or messages when s/he did not do it in video chats and conferences.

#### 6.8.4 Opportunity Items

All four opportunity items were retained in the final version of the instrument (Table 45).

Table 45. Items for Opportunity

OPP1	The cyberbully found circumstances that can help bully the victims.
OPP2	The cyberbully found opportunities to bully the victims.
OPP3	The cyberbully found many reasons to bully the victims.
OPP4	The cyberbully was able to find the right conditions to bully the victims.

#### 6.8.5 GVT Diversity Items

All GVT diversity items were retained in the final version of the instrument (Table 46).

Table 46. Items for GVT Diversity

DV1	Members of my team are similar in terms of age.
DV2	Members of my team are predominantly of the same gender.
DV3	Members of my team are similar in terms of ethnic and cultural background.
DV4	Members of my team are similar in terms of functional knowledge.
DV5	Members of my team are similar in terms of educational background.
DV6	Members of my team are similar in terms of length of organizational experience.
DV7	Members of my team are similar in terms of personal values.

#### 6.8.6 Cyberbullying Victimization Items

Twenty-two items were reduced to sixteen items after the pre-test and pilot study. Cyberbullying victimization items can be grouped under four categories of cyberbullying; (1) ignoring the target, (2) attacking the target, (3) excluding the target, and (4) criticizing the target (Table 47).

Table 47. Items for Cyberbullying Victimization

CB1	<i>Cyberbully did not respond to victim's e-mails or messages.</i>	CB_Ignore
CB2	<i>Cyberbully did not take into account victim's contributions to the project tasks.</i>	CB_Ignore
CB3	<i>Cyberbully did not want to work with the victim.</i>	CB_Ignore
CB4	<i>Cyberbully limited the victim from contributing to the project tasks.</i>	CB_Ignore
CB5	<i>Cyberbully did not consider victim's personal conditions (e.g., victim's personal schedule, sickness, serious family matters).</i>	CB_Ignore
CB6	<i>Cyberbully did not consider victim's local conditions (e.g., time zone differences, language barriers).</i>	CB_Ignore
CB7	<i>Cyberbully used insulting, offensive, abusive, or rude language.</i>	CB_Attack

CB8	Cyberbully <i>used sexually inappropriate language</i> , or sent sexually inappropriate messages, <i>symbols</i> , pictures or videos.	CB_Attack
CB9	Cyberbully attacked, humiliated or belittled the victim.	CB_Attack
CB10	Cyberbully <i>threatened</i> the victim.	CB_Attack
CB11	Cyberbully excluded the victim from the media through which team communicates and collaborates <i>for tasks</i> .	CB_Exclude
CB12	Cyberbully excluded the victim from the media through which team socializes (communication that is not related to the <i>project</i> ).	CB_Exclude
CB13	Cyberbullies established their own group in the team and worked independently from the victim <i>and team</i> .	CB_Exclude
CB14	Cyberbully <i>unfairly</i> criticized or belittled victim's work performance and capabilities without reason.	CB_Criticize
CB15	Cyberbully gave <i>unfairly</i> low peer evaluations to the victim although the victim's performance was higher.	CB_Criticize
CB16	Cyberbully made false statements about the victim.	CB_Criticize

#### 6.8.7 Individual Consequences Items

Seven of the nine items were retained after the pre-test and pilot study. Individual consequences represent three primary consequences: (1) Intention to quit (INDCON 1 and 2), (2) Job satisfaction (INDCON 3, 4 and 5), and (3) Job performance (INDCON 6 and 7) (Table 48).

Table 48. Items for Individual Consequences

INDCON1	The victim wanted to leave the team and join another team.
INDCON2	The victim wanted to leave the <i>organization</i> .
INDCON3	The victim's morale was high in the team.
INDCON4	The victim enjoyed being a part of this team.
INDCON5	The victim felt insignificant and hurt.
INDCON6	It was very challenging for the victim to concentrate on tasks and complete them.

INDCON7	The victim could not contribute to the project because the efforts were not welcome.
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#### 6.8.8 Team Consequences Items

All three items of team consequences were retained after the pre-test and pilot study (Table 49).

Table 49. Items for Team Consequences

TEAMCON1	The team met its business objectives.
TEAMCON2	The completion of team work was generally on time.
TEAMCON3	The team produced work of the highest quality.

### 6.9 Full Study

The full study is based on the GVT Cyberbullying Instrument, which was developed based on Study 1 and 2, and exposed to a rigorous methodology of validation as detailed in the sections above. With PLS, structural equation modeling involves two steps: (1) Assessment of the measurement model and (2) assessment of the explanatory and predictive power of the model (i.e., the structural model). Details of each step are presented below in the subsections 6.10.2 and 6.10.3.

The survey was distributed using a UK-based survey company website, Prolific, which offers a respondent pool of around 126,000 all around the world. While 39% and 31% of participants live in the UK and the USA, respectively, they are followed by Poland, Italy, Canada, Portugal, Germany, Australia, Spain, and Mexico. Forty-nine percent of the respondent pool falls under the age range of 20-30. We used a two-step

approach to the implementation of our survey. First, a short pre-screening survey composed of two questions asking whether (a) they were a member of GVT in the last three years and (b) if they experienced or witnessed cyberbullying. 912 respondents completed this short survey. 611 of them told they were a member of a GVT. Among them, 400 told they experienced or witnessed cyberbullying. In the second step, the full survey of the “GVT Cyberbullying Instrument” was distributed to all eligible 400 respondents., and 262 filled in the survey. Although we did not use attention-trap questions that are not related to the survey but measures if respondents are paying attention, we deliberately placed two related questions far from each other, one in the beginning and the other in the last part. In the evaluation of survey responses, these two questions revealed inconsistency for some respondents. The first question asked, “Which countries were your teammates from? Please specify all countries separately”. The second question was placed in the last block of the survey and asked, “Which country did you live in when you experienced or witnessed cyberbullying in your team?” followed by another question asking, “What is your nationality or ethnicity?” Almost all rejections were related to the inconsistent answers to these two questions. In general, the survey respondents typed only one country and also the same country to these two questions showing that the respondents did not work in a GVT, but it was a local or national virtual team. These responses were dropped, thus leading to a total of 206 usable responses.

After the survey was administered, several steps were taken to prepare the data for hypothesis testing. First, all data was initially gathered into a master Microsoft Excel spreadsheet. Excel was chosen because of its interoperability with a commonly available

statistical package. Once the data was exported into MS Excel, each response was coded using the Likert scales. Nine lack of guardianship items (GUARD 1, 2, 3, 5, 6, 7, 8, 10, 11), all team diversity items (DV 1, 2, 3, 4, 5, 6, 7), and five individual consequence items (INDCON 1, 2, 5, 6, 7) were reverse coded to depict the accurate level of the response.

Histograms of items revealed no signs of bimodality, skewness, and kurtosis issues. All of them were well within acceptable ranges.

#### *6.9.1 Descriptive Statistics*

Among 206 respondents, 35.9% were females (Table 50). Most of the respondents (41%) were in the age range of 18-24 (42.7%) and 25-34 (35.4%) in parallel with the demographics of the Prolific respondent pool while 15.5% were in the age range of 35-44, 5.8% were in 45-54, and only one respondent was 55 or older (Table 50). Sixty percent were in a project team and 40% in an operational team when they experienced or witnessed cyberbullying behaviors. Eighteen percent lived in Poland when they experienced or witnessed cyberbullying (Table 51). Portugal (11.7%), Mexico (11.2%), the USA (7.8%), and the UK (7.3%) followed Poland. The respondents reported a wide variety of ethnicities and nationalities. 20.4% of the respondents reported their ethnicity or nationality as Polish, followed by Portuguese (12.6%), Mexican (10.7%), Greek (6.3%), Chilean (5.3%), Spanish (4.4%), American (3.9%), Italian (3.9%), White (3.9%), Canadian (3.4%) and British (2.4%) (Table 52).

Table 50. Gender and Age Distribution of the Sample

<b>Gender</b>	<b>Number</b>	<b>Percentage</b>
<b>Female</b>	<b>74</b>	<b>35.9%</b>
18-24	30	14.6%
25-34	29	14.1%
35-44	10	4.9%
45-54	5	2.4%
<b>Male</b>	<b>132</b>	<b>64.1%</b>
18-24	58	28.2%
25-34	44	21.4%
35-44	22	10.7%
45-54	7	3.4%
55 or older	1	0.5%
<b>Total</b>	<b>206</b>	<b>100.0%</b>

Table 51. Countries where Respondents Lived when They Experienced Cyberbullying

<b>Country</b>	<b>Number</b>	<b>Percentage</b>	<b>Country</b>	<b>Number</b>	<b>Percentage</b>
Poland	37	18.0%	Germany	2	1.0%
Portugal	24	11.7%	Ireland	2	1.0%
Mexico	23	11.2%	Brazil	1	0.5%
USA	16	7.8%	Czech Republic	1	0.5%
UK	15	7.3%	Estonia	1	0.5%
Greece	13	6.3%	Israel	1	0.5%
Spain	12	5.8%	Japan	1	0.5%
Canada	11	5.3%	Latvia	1	0.5%
Chile	10	4.9%	Norway	1	0.5%
Italy	8	3.9%	Russia	1	0.5%
South Africa	6	2.9%	Slovenia	1	0.5%
Australia	5	2.4%	Sweden	1	0.5%
Belgium	3	1.5%	Switzerland	1	0.5%
Hungary	3	1.5%	Vietnam	1	0.5%
Argentina	2	1.0%	<b>Total</b>	<b>206</b>	<b>100.0%</b>
France	2	1.0%			

Table 52. Nationality or Ethnicity of the Respondents

Nationality / Ethnicity	Count	Percentage	Nationality / Ethnicity	Count	Percentage
American	8	3.9%	Italian	8	3.9%
Australian	3	1.5%	Japanese Filipino	1	0.5%
Belgium	1	0.5%	Karelian (Northern Europe)	1	0.5%
Black African	2	1.0%	Lebanese	1	0.5%
Black American	1	0.5%	Mexican	22	10.7%
Black British	1	0.5%	Mixed	1	0.5%
Brazilian	1	0.5%	Nigerian	1	0.5%
British	5	2.4%	Norwegian	1	0.5%
Canadian	7	3.4%	Polish	42	20.4%
Chilean	11	5.3%	Portuguese	26	12.6%
English	2	1.0%	Russian	1	0.5%
Estonian	1	0.5%	Slovenian	1	0.5%
Filipino	1	0.5%	Spanish	9	4.4%
French	3	1.5%	Swedish	1	0.5%
French (white)	1	0.5%	Swiss	1	0.5%
Greek	13	6.3%	Ukrainian	1	0.5%
Hispanic/Latino	4	1.9%	Vietnamese	1	0.5%
Hungarian	4	1.9%	White	8	3.9%
Indian	2	1.0%	White Australian	1	0.5%
Iranian	1	0.5%	White British	2	1.0%
Irish	2	1.0%	White South African	1	0.5%
Irish Canadian	1	0.5%	Total	206	100%

Sixty-five percent of the respondents reported that they were the witness (65%), while 35% reported that they were victims of cyberbullying. Some were victims, along with other team members (25%), or some were the only victim (10%) (Table 53). Cyberbullies were mostly project team members who are not managers, leaders, or



coordinators (51.5%, n=106), and they often cyberbullied other teammates (94% of 106). 34.9% (n=74) of the cyberbullies were project managers, leaders, or coordinators, and they generally bullied project team members who are subordinates to them (95% of 74) (Table 54). Among all responses which identified the cyberbully (n=180), horizontal cyberbullying constituted 50.5%, downward cyberbullying 34%, and upward cyberbullying 2.9% (Table 54).

Table 53. Respondent as a Victim or Witness

<b>Victim or Witness</b>	<b>Number</b>	<b>Percentage</b>
Respondent is the witness.	134	65%
Multiple victims, including the respondent	51	25%
Respondent is the victim.	21	10%
<b>TOTAL</b>	<b>206</b>	<b>100%</b>

Table 54. Hierarchical Positions of the Cyberbullies and Victims

Cyberbully	<b>Project team member</b>	<b>106</b>	<b>51.5%</b>
Victim	Project manager / leader / coordinator	6	2.9%
	Project team member	100	48.5%
Cyberbully	<b>Project manager / leader / coordinator</b>	<b>74</b>	<b>35.9%</b>
Victim	Project manager / leader / coordinator	4	1.9%
	Project team member	70	34.0%
Cyberbully	<b>Don't know.</b>	<b>26</b>	<b>12.6%</b>
Victim	Project manager / leader / coordinator	6	2.9%
	Project team member	20	9.7%

In 59% of the cases, there was only one cyberbully, and they generally bullied one victim (35%). In 41% of the cases, multiple cyberbullies bullied multiple victims (31%) (Table 55).

Table 55. Number of Cyberbullies and Victims per case

Number of Cyberbullies and Victims	Number	Percentage
Only ONE cyberbully	122	59%
Only ONE victim	72	35%
More than ONE victim	50	24%
More than ONE cyberbully	84	41%
Only ONE victim	20	10%
More than ONE victim	64	31%
<b>TOTAL</b>	<b>206</b>	<b>100%</b>

Most of the main cyberbullies were males (71%), and 67% of their main victims were males (98 out of 147). Twenty-two percent of the main cyberbullies were female, and 71% of their main victims were females (32 out of 45) (Table 56).

Table 56. Gender of the Main Cyberbullies and Main Victims

Cyberbully / Victim	Gender	Number	Percentage
Cyberbully	Male	147	71%
Victim	Female	49	24%
	Male	98	48%
Cyberbully	Female	45	22%
Victim	Female	32	16%
	Male	13	6%
Cyberbully	Don't know who the cyberbully was.	14	7%
Victim	Female	6	3%
	Male	8	4%
<b>TOTAL</b>		<b>206</b>	<b>100%</b>

Most of the cyberbullies were between the ages of 25 and 34 (27.7%) and 35 and 44 (27.2%) (Table 57).

Table 57. Age of the Main Cyberbullies and Main Victims

Cyberbully / Victim	Age Range	Number	Percentage	Cyberbully / Victim	Age Range	Number	Percentage
Cyberbully	18-24	41	19.9%	Cyberbully	45-54	20	9.7%
Victim	18-24	34	16.5%	Victim	18-24	6	2.9%
	25-34	6	2.9%		25-34	5	2.4%
	45-54	1	0.5%		35-44	6	2.9%
Cyberbully	25-34	57	27.7%		45-54	2	1.0%
Victim	18-24	23	11.2%		55 or older.	1	0.5%
	25-34	32	15.5%	Cyberbully	55 or older.	3	1.5%
	35-44	2	1.0%	Victim	18-24	2	1.0%
Cyberbully	35-44	56	27.2%		45-54	1	0.5%
Victim	18-24	9	4.4%	Cyberbully	Don't know.	29	14.1%
	25-34	35	17.0%	Victim	18-24	8	3.9%
	35-44	10	4.9%		25-34	9	4.4%
	45-54	2	1.0%		35-44	3	1.5%
			45-54		2	1.0%	
					Don't know.	7	3.4%

Cyberbullying victimization was evaluated on a five-level Likert scale starting with “Always” (5 as the highest score) and ending with “Never” (1 as the lowest score). The highest prevalence of cyberbullying was reported for CB14 (unfairly criticizing work performance) followed by CB3 (not wanting to work with the victim), CB5 (not considering victim’s personal conditions), CB4 (limited the victim’s contributions), CB2 (ignoring victim’s contributions) and CB7 (using insulting, rude language) (Table 58).

Table 58. Prevalence of Cyberbullying Behaviors

Item	Mean	Content
CB14	3.50	Cyberbully unfairly criticized or belittled victim's work performance and capabilities without reason.
CB3	3.48	Cyberbully did not want to work with the victim.
CB5	3.42	Cyberbully did not consider victim's personal conditions (e.g., victim's personal schedule, sickness, serious family matters).
CB4	3.41	Cyberbully limited the victim from contributing to the project tasks.
CB2	3.33	Cyberbully did not take into account victim's contributions to the project tasks.
CB7	3.32	Cyberbully used insulting, offensive, abusive, or rude language.
CB6	3.23	Cyberbully did not consider victim's local conditions (e.g., time zone differences, language barriers).
CB15	3.18	Cyberbully gave unfairly low peer evaluations to the victim although the victim's performance was higher.
CB16	3.14	Cyberbully made false statements about the victim.
CB9	3.04	Cyberbully attacked, humiliated or belittled the victim.
CB1	2.87	Cyberbully did not respond to victim's e-mails or messages.
CB12	2.83	Cyberbully excluded the victim from the media through which team socializes (communication that is not related to the project).
CB13	2.82	Cyberbullies established their own group in the team and worked independently from the victim and team.
CB11	2.59	Cyberbully excluded the victim from the media through which team communicates and collaborates for tasks.
CB8	2.35	Cyberbully used sexually inappropriate language, or sent sexually inappropriate messages, symbols, pictures or videos.
CB10	2.05	Cyberbully threatened the victim.

Table 59 shows the ICTs, which were used to cyberbully GVT team members. The “Only” column indicates the use of the medium itself without other media. “With others” column exhibit when the medium was used with other media.

Table 59. ICTs used to cyberbully

ICT	Only	With others	Total	%
Skype (or a similar video conference app)	32	90	122	59%
E-mail	8	78	86	42%
WhatsApp (or a similar app) group chat	4	70	74	36%
A social networking website / app (e.g., Facebook, Instagram, LinkedIn)	6	45	51	25%
WhatsApp (or a similar app) private message	1	38	39	19%
Voice message (Phone or a chat application such as WhatsApp)	3	28	31	15%
Voice / phone call (no video meetings)	2	26	28	14%
Google docs or any other shared documents	0	24	24	12%
A project management app (e.g., Slack)	1	21	22	11%
Social or professional online forums (e.g., Reddit, Quora, Github)	1	12	13	6%
<b>Total</b>	<b>58</b>	<b>432</b>	<b>490</b>	

### 6.9.2 Measurement Model

All items were included in the analysis using SmartPLS3. The analysis first sought to achieve construct validity. A scale is considered valid if it actually measures what it claims to, and if there are no logical errors in drawing conclusions from the data (Bagozzi & Phillips, 1991). To assess the validity of the scales employed in this study, we checked the “Construct Reliability and Validity” measures of Cronbach’s Alpha, Composite Reliability, and Average Variance Extracted (AVE) (Table 60). Team diversity was not included in the construct reliability and discriminant validity analysis because this construct’s items were conceptualized as formative.

Table 60. Construct Reliability and Validity

Constructs	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
VALUE	0.709	0.793	0.304
VISIB	0.580	0.769	0.541
ACCES	0.583	0.782	0.546
GUARD	0.766	0.750	0.285
MEDIUM	0.695	0.764	0.248
OPP	0.769	0.851	0.589
DV	<i>Formative indicators</i>		
CB	0.836	0.864	0.296
INDCON	0.731	0.777	0.369
TEAMCON	0.750	0.847	0.650

Cronbach's  $\alpha$  is commonly used to establish internal consistency and construct validity. Cronbach's alpha of .90 and more indicates excellent internal reliability while values between .70 and .90, between .50 and .70, and below .50 indicate high, moderate, and low internal reliability, respectively (Hinton et al., 2014). Visibility (0.580) and accessibility (0.583) had moderate internal validity. Composite reliability scores for all items exceeded 0.7. Finally, AVE scores were assessed. AVEs measures the variance captured by a latent construct (explained variance) and should be at least .50 to ensure a satisfactory convergent validity (Fornell & Larcker, 1981; Gefen & Straub, 2005). AVE scores were more than 0.5 for visibility, accessibility, opportunities, and team consequences, while value, lack of guardianship, ICT-related characteristics, and cyberbullying victimization were less than 0.5.

Discriminant validity and factor loadings were further examined both for these constructs and other constructs. Discriminant validity is the degree to which an operationalization diverges from other operationalizations from which it should be

theoretically dissimilar. Discriminant validity was measured by means of Heterotrait-monotrait ratio of correlations (HTMT) instead of Fornell-Larcker Criterion and cross loadings, which is a newer criterion available on SmartPLS (Henseler et al., 2009; 2015). HTMT values which are close to 1 indicates a weak discriminant validity. HTMT values are all below 0.9 in our analysis which is an indication of good discriminant validity (Gold et al. 2001; Teo et al. 2008) (Table 61).

Table 61. Discriminant Validity

	ACCES	CB	DV	GUARD	INDCON	MEDIUM	OPP	TC	VALUE
ACCES									
CB	0.364								
DV	0.414	0.440							
GUARD	0.304	0.332	0.457						
INDCON	0.495	0.497	0.375	0.375					
MEDIUM	0.480	0.686	0.489	0.561	0.604				
OPP	0.409	0.386	0.270	0.241	0.376	0.417			
TC	0.211	0.241	0.337	0.267	0.415	0.185	0.123		
VALUE	0.420	0.758	0.529	0.382	0.601	0.874	0.496	0.175	
VISIB	0.405	0.238	0.352	0.601	0.438	0.504	0.209	0.407	0.373
*TC: TEAMCON									

Factor loadings determine an item's absolute contribution to its assigned construct (Hair et al., 2016). Loadings must be equal to or greater than .5 for convergent validity to be considered acceptable (Kline, 1998; Hair, 2010). Due to their low factor loadings, VALUE 1, 5, 6, 7, VISIB 3, GUARD 4, 6, 10, MEDIUM 3, 4, 8, 9, 10, CB 1, 2, 3, 4, 5, 6, and INDCON 3, 4 were removed (Table 62). Although there are low factor loadings for CB 1, 2, 3, 4, 5 and 6, we did not remove them initially because their construct validity and composite reliability were higher than 0.7.

Table 62. Factor Loadings

Item	Loading	Item	Loading	Item	Loading
VALUE1	0.487*	MEDIUM1	0.600	CB1	0.359*
VALUE2	0.667	MEDIUM2	0.566	CB2	0.290*
VALUE3	0.561	MEDIUM3	0.268*	CB3	0.451*
VALUE4	0.577	MEDIUM4	0.311*	CB4	0.395*
VALUE5	0.451*	MEDIUM5	0.610	CB5	0.398*
VALUE6	0.460*	MEDIUM6	0.737	CB6	0.319*
VALUE7	0.434*	MEDIUM7	0.512*	CB7	0.549
VALUE8	0.602	MEDIUM8	0.482*	CB8	0.543
VALUE9	0.664	MEDIUM9	0.295*	CB9	0.638
		MEDIUM10	0.210*	CB10	0.603
VISIB1	0.887	MEDIUM11	0.585	CB11	0.684
VISIB2	0.787			CB12	0.651
VISIB3	0.467*	OPP1	0.817	CB13	0.643
		OPP2	0.762	CB14	0.600
ACCES1	0.728	OPP3	0.764	CB15	0.661
ACCES2	0.802	OPP4	0.724	CB16	0.661
ACCES3	0.681				
				INDCON1	0.819
GUARD1	0.765			INDCON2	0.768
GUARD2	0.630			INDCON3	0.181*
GUARD3	0.637			INDCON4	0.239*
GUARD4	0.103*			INDCON5	0.672
GUARD5	0.700			INDCON6	0.610
GUARD6	0.305*			INDCON7	0.638
GUARD7	0.539*				
GUARD8	0.709			TEAMCON1	0.807
GUARD10	0.033*			TEAMCON2	0.891
GUARD11	0.580			TEAMCON3	0.711

\* These factors were removed; therefore, they were not included in the structural analysis.

After the removal of factors indicated in Table 62, construct validity scores were computed as in Table 63. Although there was substantial improvement in the values, AVEs remained below 0.5 for MEDIUM and CB. VALUE and INDCON achieved an acceptable score very close to 0.500. However, with a more conservative approach,



AVEs less than 0.5 can be accepted and convergent validity of the construct can be considered adequate, even though more than 50% of the variance is due to error (Fornell and Larcker, 1981). Besides, composite reliability is more than 0.700 for all constructs (Peterson and Kim, 2013).

Table 63. Construct Validity after the removal of some factors

Constructs	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
VALUE	0.736*	0.823*	0.484*
VISIB	0.640*	0.845*	0.732*
ACCES	0.583	0.782	0.546
GUARD	0.831*	0.871*	0.531*
MEDIUM	0.648	0.774*	0.408*
OPP	0.769	0.851	0.589
DV	Formative indicators		
CB	0.843*	0.876*	0.415*
INDCON	0.748*	0.830*	0.498*
TEAMCON	0.750	0.847	0.650

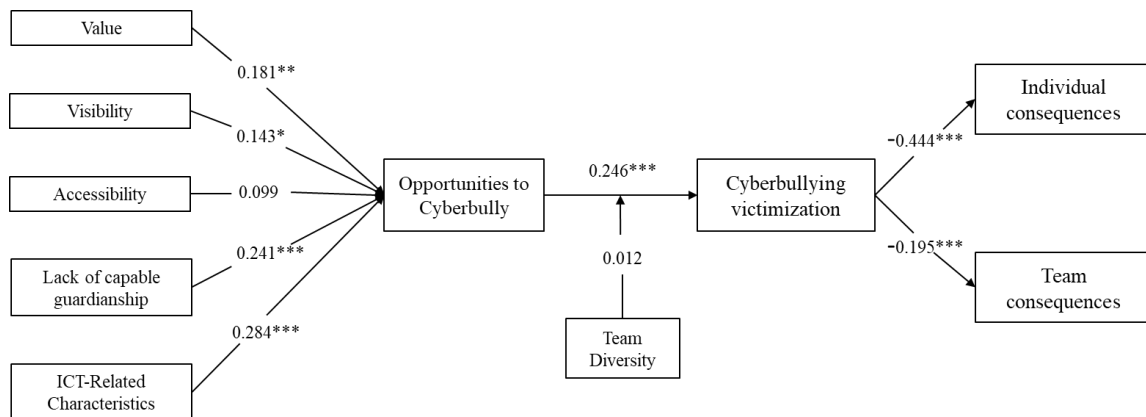
*\*These values improved when compared to Table 60.*

As it was the case in the first measurement model (Table 60), all HTMT values for discriminant validity are satisfied under 0.90. All factor loadings were checked in terms of their t-statistics, and all of them were found to be equal or higher than 1.96, which means that all loadings are significant. Overall, the results suggest that the measurement model is adequate. Therefore, the structural model can now be examined.

### 6.9.3 Structural Model

The evaluation of the structural model involved the strength of the hypothesized relationships among the constructs by assessing the predictive power of the model by

examining the  $R^2$  values on the endogenous variables, and path coefficients and t-values for each path obtained through bootstrapping. Table 64 exhibits the summary of all hypotheses, and path coefficients with their significance levels are illustrated in Figure 9. Seven hypotheses were supported, while two hypotheses were not supported.



\* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$  (2-tailed test).

Figure 9. Research Model with Results

Table 64. Summary of the Path Coefficient Results

Hypotheses	Path coefficient	T-statistics	P-value	Result
H1a: Perceived value of target to opportunities	0.181	2.567	<b>0.010</b>	<b>Supported</b>
H1b: Visibility of target to opportunities	0.143	2.314	<b>0.021</b>	<b>Supported</b>
H1c: Accessibility of target to opportunities	0.099	1.220	<b>0.223</b>	Not supported
H1d: Lack of capable guardianship to opportunities	0.241	2.955	<b>0.003</b>	<b>Supported</b>
H1e: ICT-related characteristics to opportunities	0.284	3.771	<b>0.000</b>	<b>Supported</b>
H2: Opportunities to cyberbullying victimization	0.246	3.431	0.001	<b>Supported</b>

H3: GVT diversity as a moderator between opportunities and cyberbullying victimization	0.012	0.199	<b>0.843</b>	Not supported
H4a: Cyberbullying victimization to individual consequences	-0.444	8.619	<b>0.000</b>	<b>Supported</b>
H4b: Cyberbullying victimization to team consequences	-0.195	3.061	<b>0.002</b>	<b>Supported</b>
<i>Notes: t-statistics were calculated using bootstrapping, using 2,000 samples.</i>				

Unsupported relationship between accessibility and opportunities was further analyzed to figure out if there are any significant indirect effects or accessibility's relationship with another construct. The indirect effect of accessibility on opportunities produced a significant result (0.075,  $p=0.026$ ). The path coefficient between accessibility and value was 0.292 ( $p=0.002$ ), and between accessibility and visibility was 0.239 ( $p=0.004$ ). Ultimately, accessibility increased opportunities via value and visibility.

The predictive power of the model is shown in Table 65. Perceived value, cyberbullying victimization, and individual consequences have significant R square values while team consequences construct has a p value of 0.137 with a low level of variance explained. An interesting finding was the indirect effect of cyberbullying victimization on team consequences. It was a significant negative effect (-0.091,  $p=0.017$ ). While the R square value of the direct effect was 3.8% and insignificant (0.137) as illustrated in the Table 65, the indirect effect generated a significant R square value of 6.8% ( $p=0.040$ ). This result reveals that when individual consequences become worse for victims, team consequences got worse as well (0.206,  $p=0.01$ ).

Table 65. The Predictive Power of the Model

<b>Endogenous constructs</b>	<b>Variance explained (%)</b>	<b>P value</b>
<b>Opportunities</b>	25.5	0.000
<b>Cyberbullying Victimization</b>	15.4	0.002
<b>Individual Consequences</b>	19.7	0.000
<b>Team Consequences</b>	3.8	0.137

Graphical analysis is a standard technique for examining moderating effects or interactions (West et al., 1996). We examine these interactions in the following charts to illustrate the moderating effects of two team diversity indicators: DV3 (cultural diversity) and DV6 (organizational experience diversity). Although team diversity in total did not moderate the relationship between opportunities and cyberbullying victimization, two diversity elements moderated this relationship significantly. Figure 10 shows that cultural diversity enhances the impact of opportunities on cyberbullying victimization (i.e., it makes it worse).

In a similar way, organizational experience diversity also enhances this impact (Figure 11). However, the other five types of diversity did not produce a significant moderating effect.

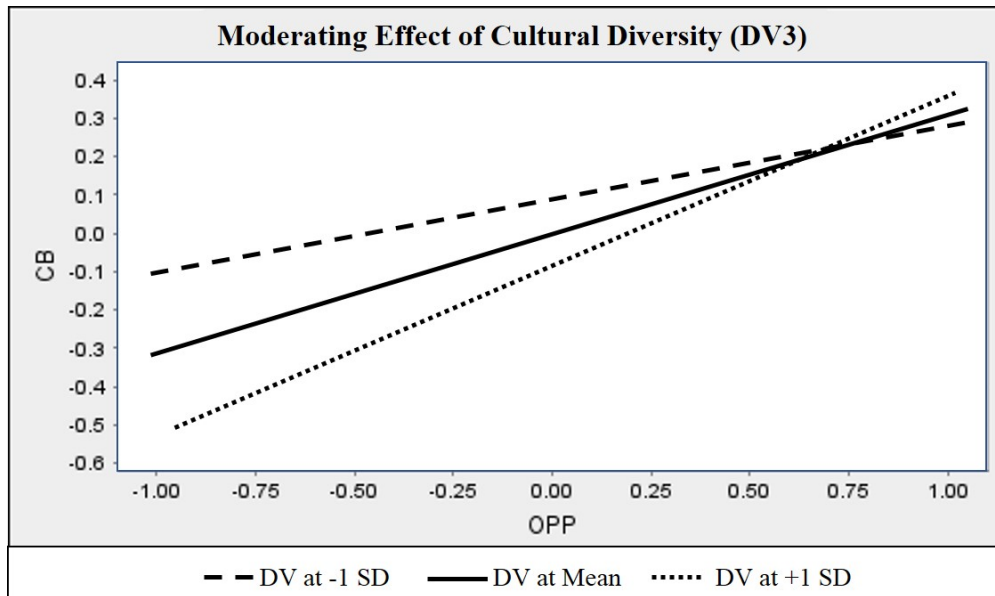


Figure 10. Moderating Effect of DV3 (Cultural Diversity)

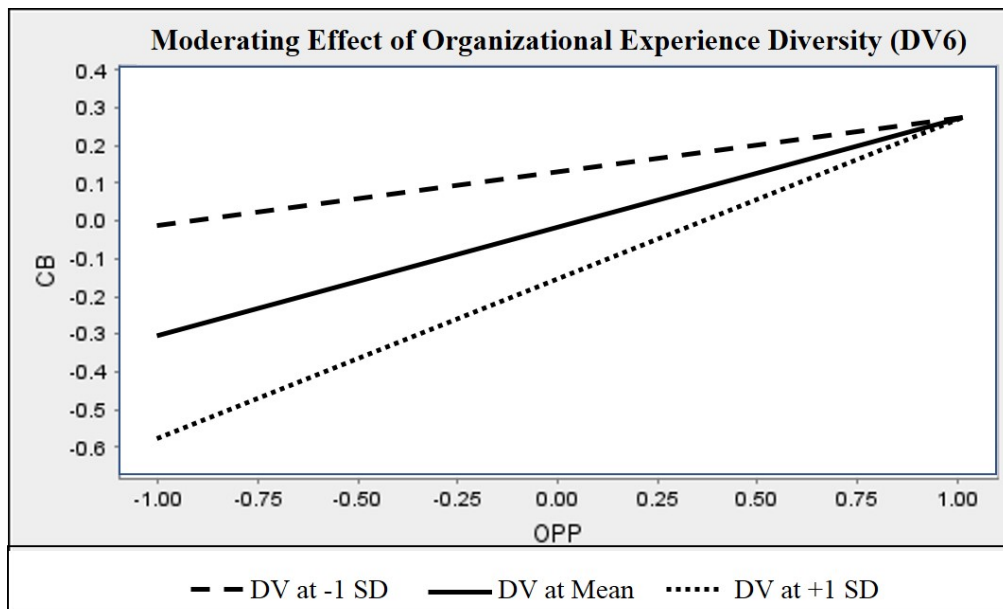


Figure 11. Moderating Effect of DV6 (Organizational Experience Diversity)

## **6.10 Discussion of the Findings**

### *6.10.1 Target Suitability Elements*

Motivated offenders found more opportunities when there was a value perceived by them and the visibility of the target. Cyberbullies perceived value of acquiring a leadership or promotion in the team, obtaining valuable information from the victim, or being appreciated by online and/or offline peers. Visibility of the victims increased when they were active in video conferences or group conversations and contributed a lot to the project. Although accessibility was one of the three target suitability elements conceptualized in our research model, it could not create a significant impact on the opportunities. However, more accessibility led to more opportunities to cyberbully via value and visibility. Accessing victim's personal information, pictures, and videos on social networking sites as a friend, knowing the victim's contact information, and knowing about all contributions made by the victim on a shared file contributed to the creation of more value and visibility, and hence more opportunities. In GVTs, accessing victims' vulnerable information may be easier because electronic media is the primary method to communicate and collaborate, and it necessitates a transparent communication protocol among team members. Team members share their contact information in order to keep in touch with all teammates, and they may try to get to know each other on social networking sites as a substitute for real-life gatherings. In one of the comments that detailed the cyberbullying case, a respondent wrote: "The bullying group frequently make memes of the victims (I mean they are taking a picture of victims without their permission, then add a harmful inscription and post it in social media or in messenger, for

example).” As is seen in this comment, cyberbullies could access victims’ pictures on video chats and conferences and publish the doctored pictures.

#### *6.10.2 Lack of Guardianship*

Lack of guardianship had a larger effect than value and visibility had on the opportunities to cyberbully. When organizations and their agents, who are managers and GVT leaders, did not intervene in a short time and effectively, when they did not remove the cyberbully from the team or organization, and when organizational regulations were not effective to overcome the problems, opportunities to cyberbully increased. Besides, the organization’s follow-up and monitoring of the situation after the intervention was an important factor. Therefore, a proactive approach has to be taken by organizations not only to extinguish the flame at the time of cyberbullying but after the intervention to control the negative behaviors and prevent them from emerging again and escalating. An organizational culture that ensures the adherence of all employees, including the managers and team leaders, to all guidelines set by the organization is another important factor in the prevention and mitigation of cyberbullying behaviors. Leaders are key agents in the implementation of organizational policies. Furthermore, they need to possess skills that assure the effective management of conflicts and cyberbullying behaviors occurring in GVTs. As the fourth guardianship conceptualized in our theoretical framework, the survey results supported the importance of peer support in the elimination of cyberbullying behaviors. All four guardianships, effective organizational governance, healthy organizational culture, effective leadership, and peer support had significant effects on the oppression of opportunities.

### *6.10.3 ICT-Related Characteristics*

This construct was designed to reflect the negative characteristics of ICTs, which were identified as lack of immediacy of feedback, symbol variety in bullying messages, and online disinhibition effect. Although some items were removed due to low factor loadings, all three characteristics were represented, and they, together, significantly increased the opportunities to cyberbully. Cyberbullies took advantage of the lack of immediacy of feedback to impose their own opinions and establish a power relationship in favor of themselves. Bullying messages rich in symbol variety (capital letters, more-than-usual utilization of punctuation marks, emojis, and symbols) provided more opportunities to cyberbully. Finally, the online disinhibition effect was prevalent in emails and messages as compared to video chats and conferences.

Table 59 depicted that cyberbullies do not use only one electronic medium to conduct negative behaviors. Twenty-eight percent of the respondents indicated only one medium was used to cyberbully, whereas 72% indicated the use of more than one medium. Overall, Skype or a similar video conference app (59%), emails (42%), WhatsApp (or a similar app) group chat (36%), and social networking websites/apps (e.g., Facebook, Instagram, LinkedIn) (25%) were the top four media used to cyberbully. The dominance of video conference apps might require further research to understand the extent and impact of online disinhibition effect.

In this regard, guardianship (organizational governance and leadership) may play an important role in the creation of an optimal portfolio of ICTs, and organizations can elaborate on the rules regarding the communication protocol for the most common ICTs.



#### 6.10.4 GVT Diversity

Our analysis produced a significant moderation effect only for two diversity indicators, cultural and organizational experience. It is of high importance that these two diversity items should be on the agenda of organizations and GVT leaders while striving for a smoother and better performance throughout the life cycle of a GVT. However, it does not necessarily mean that other diversity items are less important, though they need to be taken into account by the organizations and team leaders.

Survey taker GVT members were also asked, “If your cyberbullying experience is not listed above or if you wish to provide more detail, please describe below. If you do not want to answer, you can skip this question.” Twenty-seven respondents typed their experience to complement their survey answers or make an additional explanation regarding their cyberbullying experience. Eleven of these comments supported the survey findings, especially in terms of cultural diversity (Table 66).

Table 66. Comments Provided by the Respondents with regard to the Cultural Diversity

Cultural superiority and humiliation	Cyberbully would say openly that he disliked working with this individual due to his country of residence.
	It was a matter between people from a country who sees people of other country as people of "lower" level
	It's how Americans view other people outside their country, and how they think they can insult everyone.
	Team cross evaluation between Mexico and India teams. Indian team belittled our job and called us useless.
	Towards offenses, above all by nationalities, by races. They made them inferior to other team members
Ethnicity	I think te biggest problem in the mind of the bully was the ethnicity of the victim

Racism	I feel that the comments made to the team member were racially motivated as the victim was of a different skin color to the rest of the team. Myself and other team members were able to have the cyber bully in question taken off the project.
	Racism just because of ethnicity most especially if Asian
	Sometimes even me and another colleague were left out of a project for having physical features that did not fit the socioeconomic class where the other colleagues went to carry out this field study, it was an obvious act of racism through the group of WhatsApp.
	the bully would send jokes about my country saying awful things and relate those things to me and my family eg: " I bet she and her 20 members of her family ate a person last night and she got the d... ". Then the subject would laugh creating chaos.
	the cyberbullying I witnessed was also often polluted by racist attacks, where insults and heavy jokes were all fueled by prejudice and bigotry towards the victims.

#### *6.10.5 Opportunities and Cyberbullying Victimization*

When motivated offenders in GVTs found more opportunities, they carried out more cyberbullying behaviors leading to more cyberbullying victimization. The most frequent cyberbullying behaviors were “unfairly criticizing or belittling victim’s work performance and capabilities without reason,” “not wanting to work with the victim,” “not considering the victim’s personal conditions (e.g., victim’s personal schedule, sickness, serious family matters),” “limiting the victim from contributing to the project tasks,” “not taking into account victim’s contributions to the project tasks,” “using insulting, offensive, abusive, or rude language,” and “not considering victim’s local conditions (e.g., time zone differences, language barriers).”

Since factor loadings were low for the first six cyberbullying items, they were removed from the construct. When these items were tested within another construct, they produced significant results for the relationship with opportunities (0.250,  $p=0.001$ ). However, they did not generate a significant relationship with individual consequences ( $p=0.558$ ) and team consequences ( $p=0.668$ ).

#### *6.10.6 Individual Consequences*

Cyberbullying victimization caused negative individual consequences for the victim. Victims thought of leaving the team and the organization (intention to quit). They felt insignificant and hurt (lower job satisfaction). They could not concentrate on tasks to complete them and could not contribute to the project because their efforts were not welcome (lower job performance). The extant literature on workplace bullying and cyberbullying as well as other types of workplace mistreatment, had a strong record of significant relationships between victimization and individual consequences. Our study demonstrated that consequences suffered by the victims had been a material issue, and organizations and their HR departments need to monitor them closely and proactively.

#### *6.10.7 Team Consequences*

Cyberbullying victimization caused negative team consequences for the victim. Although cyberbullying victimization affected team consequences negatively and directly, the impact was higher and significant via individual consequences. After victims were exposed to more cyberbullying victimization, team failed to meet its business objectives, could not complete the team work generally on time, and could not produce work of the highest quality. Therefore, this demonstrates the need to take action as soon

as possible when team members report that they are subject to cyberbullying from their virtual team members and/or a peer reports the unpleasant mistreatment against the victim. Negative team consequences can be prevented substantially by an effective intervention that prevents victimization.

#### *6.10.8 Gender, Age, Work Performance and Hierarchical Position*

In our sample, the respondents indicated that most of the cyberbullies were males, and their victims were mostly males (67%), while a smaller but considerable percentage of their victims were females (33%). Cyberbullying generally occurred between the same genders. One interesting finding was based on specific cyberbullying behaviors and gender. Respondents who replied the frequency was “Always,” “Frequently” and “Occasionally” for “Using sexually inappropriate language or sending sexually inappropriate messages, symbols, pictures or videos” (45%) stated that most of the cyberbullies were males (78%) and most of their victims were males (63%). A similar pattern was true for females, and females cyberbullied mostly females (67%).

Our sample was composed of younger GVT members (18-24: 42.7%; 25-34: 35.4%; 35-44: 15.5%). Only 35% of the respondents were the victims, therefore the remaining 65% reported as witnesses. These respondents indicated that most of the cyberbullies were between 25 and 44 (54.9%), and victims were mostly between 18 and 34 (82%). In general, cyberbullies offended their teammates who are either at their age group or lower ages.

## **6.11 Limitations and Future Research**

As it is the case for all studies, our study has limitations. First off, we used self-report data. GVT members who experienced cyberbullying might perceive their work situation more negatively due to their diminished well-being and report more severe results. However, 65% of the respondents were witnesses, and they reported another member's victimization. Therefore, they had the opportunity to reply more objectively.

Non-response or reduced response rate are issues in survey research. In order to minimize them, a professional online research company, Prolific, was selected, and the data was collected from a wide variety of countries. A prequalification survey helped to focus on the target population of interest. However, the sample age mean was relatively low due to the young respondent pool of Prolific. Future research can target a more balanced sample of GVT members by assigning age quotas and can also examine if there are different tendencies among young and old age groups.

Common method bias was another concern. In order to minimize this bias, some remedies were utilized, such as counterbalancing question order and protecting respondent anonymity (Podsakoff et al., 2003). The correlation matrix and VIF test show little evidence of monomethod bias, and covariance method bias is not a plausible explanation for moderated effects. Thus, common method bias is not likely a significant threat to this study's validity.

Team development stages, as explicated in Chapter 3, could not be tested in this study due to the reasons explained in the section "6.2 Research Model". Although a longitudinal study can be implemented but would be time-consuming for a doctoral

dissertation, the non-sequential flow of developmental stages may hinder an effective analysis. Thus, a case study in an organization that has an adequate number of GVTs could ensure researchers in keeping track of each stage and match them with any cyberbullying behaviors. This kind of future research could make it possible to investigate long-term consequences not only on individuals and teams but also on the organization itself.

### **6.12 Conclusion**

This study tested the research model and its hypotheses corroborated with findings from the first two studies. Seven hypotheses were supported as a result of the analysis based on partial least squares (PLS) path modeling conducted on SmartPLS. The next chapter will discuss the findings of all three studies.

## CHAPTER VII

### DISCUSSION

#### **7.1 Introduction**

Cyberbullying is one of the substantial issues that has been on the agenda of organizations and is investigated by scholars. It is not rare to see news regarding cyberbullying behaviors targeting vulnerable coworkers and the consequences of these negative behaviors on these victims. This dissertation was motivated by the increasing evidence of cyberbullying at workplaces and the absence of cyberbullying research in conceptual and empirical studies regarding the antecedents, dynamics, and consequences of cyberbullying behaviors in global virtual teams. A dramatic increase in the utilization of GVTs by organizations, even in less-developed countries, necessitated an investigation of GVT cyberbullying (Culture Wizard, 2018, 2020).

This dissertation addressed the research questions by developing a framework (presented in Figure 1) that represents a novel contribution to the assessment of cyberbullying behaviors in global virtual teams. The main objectives of this work are to (1) understand the prevalence and dynamics of cyberbullying in global virtual teams (GVTs), (2) examine and identify the antecedents of cyberbullying in GVTs based on target suitability and capable guardianship both of which enable opportunities for motivated offenders to cyberbully, (3) explore the impact of communication medium characteristics and team diversity on the cyberbully victimization, and (4) investigate the

consequences for team members and the team itself. The following sections provide a discussion of all constructs from the three studies conducted within this dissertation. Future research directions have also been discussed in these sections.

## **7.2 Target Suitability Elements**

### *7.2.1 Value*

Cyberbullies sought to acquire value as a result of their cyberbullying behaviors. Economic values consisted of acquiring a better position in their teams and organizations, promoting to a higher hierarchical position, getting rid of a team leader or a member who they thought was not good, and stealing valuable information to increase their competitiveness in the team. Apart from obtaining an economic value, cyberbullies also found the opportunity to cyberbully when they had stereotypes about the victim (e.g., gender, age, race or ethnicity, religion) or thought that their culture is superior to the victim's culture. Cultural or national superiority was also reflected in cases where collocated national teams attack other teams. Seeking to gain peer acceptance was an essential incentive in those cases. Besides, some cyberbullies looked for a value of sexual enjoyment. They sexually harassed their teammates as a result of thrill-seeking or peer acceptance motives.

### *7.2.2 Visibility*

Visibility as the second target suitability element had a significant positive association with opportunities. When the victims were very active in online communication and collaboration tools or contributed a lot to the project, cyberbullies found more opportunities. Besides, when victims confronted the cyberbully to convey



their concerns (e.g., cyberbullies' need to improve themselves or cyberbully doing inappropriate things), it created more opportunities to cyberbully due to the increased visibility of victims. Study 2 also revealed another visibility factor, which is the differences in the working styles and habits of collocated teams. However, since these differences were observed between nationally collocated teams, they were evaluated within the cultural diversity concept.

### *7.2.3 Accessibility*

Opportunities increased for cyberbullies when cyberbullies could access the victim's personal information, pictures, and videos on social networking sites as a friend, follower, or connection. Besides, opportunities increased when cyberbullies knew victim's contact information such as phone number, e-mail address, Skype ID, etc., and knew about all contributions made by the victim in a shared file, enterprise social media, or a project management software team collaborates. The role of accessibility has been clarified with Study 3. Even though accessibility could not produce a significant direct effect on the opportunities in Study 3, its impact via value and visibility was significant. Therefore, the accessibility of targets can be considered as a stronger antecedent of both value and visibility. In order to probe into the relationship of three target suitability elements, and how they influence opportunities and cyberbullying victimization, and their relationship with lack of guardianship and ICT characteristics, a qualitative study or an experimental study can be conducted which focus on these constructs.

### **7.3 Lack of Guardianship**

Lack of guardianship is one of the themes dominated across the cases in Study 1 and interviews in Study 2. Victims and witnesses highlighted the importance of guardianship, in particular, in terms of organizational governance. Furthermore, other capable guardianship concepts that are organizational culture, leadership, and peer support, were corroborated with the data in Study 2. Study 1 provided the evidence for the guardianship except for organizational culture. Study 3 supported the relationship between lack of guardianship and opportunities to cyberbully in a positive direction. However, two organizational culture items had to be removed due to their low factor loadings. In Study 3, lack of guardianship had the second largest impact on the opportunities to cyberbully after ICT-related characteristics.

GVT members relied on organizational policies and codes of conduct, and the organization's capability to intervene abruptly and effectively in any mistreatments against them. When the organizational intervention was not effective, this provided an appropriate environment for cyberbullies to offend and continue their negative behaviors. In this regard, GVT members considered a well-established organizational governance mechanism strengthened with up-to-date and crystal-clear policies as an effective deterrent of cyberbullying. Besides, victims and witnesses in GVTs expected their organizations to monitor the situation closely after organizations performed an effective intervention on cyberbullying cases because of the repetitive and persistent behaviors.

Effective leadership has been one of the guardians. However, an important finding was the relationship between organizational governance and leadership. In some

cases, power relationships and imbalance in favor of another were prevalent. Leaders could override organizational policies. In other cases, senior managers of the project leaders restricted the responsibilities and authority of leaders in the very beginning or when the GVT activities were going on.

Organizational culture, along with team culture, was addressed in Study 2. In contrast, Study 1 could not reveal any findings as regards the organizational culture due to the short period of X-Culture student GVTs. Both of the organizational culture items had to be removed in Study 3 since their factor loadings were low. Taking into account the organizational culture, team culture, and different working styles developed and implemented by collocated national sub-teams, a qualitative case study could have substantial contributions to the identification of organizational cultural factors and their impact on workplace cyberbullying.

The fourth capable guardianship concept was the support provided by peers (i.e., coworkers, colleagues) in teams for victims. This support helped victims to reveal cyberbullies' intentions and negative behaviors against them, and hence prevented cyberbullying behaviors directed against victims or mitigated the scope or impact of these behaviors after they occurred.

#### **7.4 ICT-Related Characteristics**

ICTs are the primary tools that make communication and collaboration possible in GVTs. The mandatory nature of remote work necessitates the utilization of ICTs to the full extent. Our theoretical model conceptualized their role as an antecedent of opportunities to cyberbully. In Study 3, three negative ICT characteristics produced the

largest effect on opportunities. Combined with Studies 1 and 2, ICT characteristics attract more attention and need further investigation.

Various types of ICTs were used to cyberbully teammates in GVTs. It was possible to learn about the frequency of usage in Study 3. Skype (or a similar video conference app), emails, WhatsApp (or similar app) group chats, and a social networking website/app (e.g., Facebook, Instagram, LinkedIn) were ranked at the top (Table 59), which have also been in parallel with Study 1 and 2. Besides, cyberbullies generally utilized more than one ICT to conduct their negative behaviors. Therefore, this situation could be assessed by organizations and GVT leaders in prioritizing ICTs, which allow better control and monitoring mechanism.

All our studies demonstrated the notable impact of three negative characteristics, lack of immediacy of feedback, symbol variety in bullying messages, and online disinhibition effect, and how they create opportunities for cyberbullies. Future research can investigate other positive and negative characteristics of ICTs.

## **7.5 Opportunities**

In our research model, routine activities theory was the primary underlying theoretical underpinning. Opportunities become available for motivated offenders in the presence of target suitability elements that are value, visibility and accessibility, and lack of guardianship. Besides, the theoretical framework included ICT-related characteristics as another construct affecting the opportunities to cyberbully directly. Combined, they all create more opportunities for a motivated offender (cyberbully). Studies 1 and 2 corroborated through the qualitative datasets how target suitability elements, lack of

guardianship, and communication medium characteristics create opportunities to cyberbully and hence lead to cyberbullying victimization. In Study 3, we could add opportunities as a construct and had the chance to test the relationship between those constructs and opportunities, and its mediating effect between those constructs and cyberbullying victimization, eventually having a significant relationship.

### **7.6 Team Diversity**

As is expected in a culturally diverse team, cultural differences played an important role in the emergence of conflicts and cyberbullying. Study 1 provided a range of diversity types that GVT members thought influenced cyberbullying victimization negatively. Study 2 elaborated on the strategies developed and utilized by GVT leaders and members to mitigate any problems caused by cultural differences and misinterpretations. Cultural diversity and its related aspects, such as time differences and language barriers, dominated both studies. These studies contributed to Study 3 to incorporate seven themes: (1) Age, (2) gender, (3) cultural diversity, (4) functional knowledge, (5) educational background, (6) length of organizational experience, and (7) personal values and attitudes. Study 3 could not find any moderating effect for team diversity construct composed of all seven types. However, individual assessment of each diversity type revealed that cultural diversity and length of organizational experience increased the negative impact of opportunities on the cyberbullying victimization. These results indicate that cultural diversity is one of the most important factors which organizations and GVT leaders need to take into account while forming and managing GVTs and dealing with the conflicts, mistreatment, aggression, and cyberbullying among

team members. Although the prominent role of cultural diversity can be regarded as a likely result in GVTs considering these teams' complex structure and their primary purpose to benefit from a wider pool of experts across the world, our findings could still guide organizations and managers to identify priorities and methods to minimize or eliminate the negative effects. Besides, the length of organizational experience was another significant moderator. It was not possible to discern this diversity in Study 1 since student GVTs were more homogenous in terms of organizational and functional background.

### **7.7 Cyberbullying Victimization**

Our research assured the identification of cyberbullying behaviors which previous literature did not address because of the focus of their studies on a more general working environment and where physical face-to-face relations are dominant. Besides, our research incorporated cybersexual harassment (cyber gender harassment in a wider framework) in cyberbullying behaviors. Although it is always possible to bring about new perspectives when cybersexual harassment is investigated alone (Mainiero and Jones, 2013; Ritter, 2014; Henry and Powell, 2015), our inclusive approach can help organizations and managers evaluate cyberbullying behaviors in a wider range, including cybersexual harassment.

### **7.8 Individual Consequences**

Cyberbullying victimization caused negative individual consequences for victims. When victims were exposed to cyberbullying behaviors, their job satisfaction and performance were impaired, and they developed an intention to quit their team or the

organization. The extant literature also supports these results (Farley, 2015; Ford, 2013; Gardner et al., 2016; Muhonen et al., 2017).

### **7.9 Team Consequences**

Due to the absence of GVT cyberbullying studies, team consequences have not been discussed in workplace cyberbullying studies, but in studies investigating conflicts, collaboration, and trust in GVTs (Ayoko et al., 2012; Pinjani and Palvia, 2013; Alsharo et al., 2017). Our study focused on the impact of cyberbullying victimization on team performance, which was measured in terms of meeting business objectives, completion of team work on time, and producing work of the highest quality. Eventually, Study 3 supported the significant indirect relationship between cyberbullying and team consequences through individual consequences.

### **7.10 Team Development Stages**

As it was discussed in the subsections “4.6.7” and “6.2”, team development stages and their moderating effect between opportunities and cyberbullying victimization could not be evaluated. However, future studies can explore this construct and how it could moderate the impact of opportunities on the cyberbullying victimization.

### **7.11 Research Contributions**

This work has significant implications for research. This research has created an unprecedented opportunity to contemplate and improve the research on cyberbullying in GVTs with their antecedents and consequences elaborated. In this regard, based on the main elements of Routine Activities Theory (RAT), negative characteristics of ICTs, and team diversity, our research helps to understand better how and to what extent

cyberbullying occur in GVTs. The application of RAT in a new context in which ICTs are utilized as the key communication and collaboration tools could have a substantial impact on the modification and adaptation of the theory in cyberspace where offline interactions are not existent or negligible.

All three studies probed into the cyberbullying behaviors, which could be detrimental to global virtual teams and their members, and ultimately to the organizations as a whole. Routine activities theory has provided us with the underpinnings that have enabled the determination of the antecedents, which could lead to cyberbullying behaviors in GVTs. This theoretical justification provided us with the examination of causal relationships employing the thematic analysis of a comprehensive qualitative data in Study 1, and further explore them in Study 2 and eventually test these relationships in Study 3. This comprehensive work extends the previous research in cyberbullying by integrating the antecedents in the forms of target suitability elements and capable guardianship, and the role of ICT characteristics (immediacy of feedback, symbol variety, and online disinhibition) and team diversity. Not only the research on workplace cyberbullying at GVTs can benefit from this research and its outputs, but the studies with regard to the workplace cyberbullying could extend their models to include more factors with a view to providing a comprehensive examination.

The development of a GVT workplace cyberbullying instrument has methodological, theoretical, and practical contributions. A comprehensive measure is a useful tool for those seeking to address cyberbullying in GVTs. A further methodological contribution concerns the prevalence of cyberbullying in GVTs. A more precise estimate



of prevalence can only be achieved with a valid measure that can reliably assess cyberbullying across different working populations and cultures. Second, the development of this instrument contributes theoretically, as it allows researchers to assess the phenomenon in a consistent manner.

### **7.12 Practical Implications**

Our findings are of significant managerial importance. The GVT cyberbullying instrument makes a practical contribution. Data collected from GVT members using this instrument could contribute to the design and implementation of intervention strategies. The results of this study could be valuable to executive managers, functional department managers, and project managers who are becoming more engaged in GVTs. The results also contribute to further understanding of the phenomenon and the impact that cyberbullying in GVTs may have on the organization's strategic objectives, daily operations, disruptive projects, and performance. Managers may use the findings of the study to develop strategies to recognize better cyberbullying in GVTs, design policies, and mandatory employee education to reduce cyberbullying and support victims. Ultimately, reducing cyberbullying in the workplace would improve productivity, increase employee retention, and reduce the cost associated with turnover resulting from bullying employees.

As organizations of all types in a globalized world seek to operate increasingly by means of global virtual teams composed of members from all around the world with high diversity, ensuring effective and healthy team management is a key managerial concern for team success and desired outputs. Recently, the outbreak of COVID-19 pandemic and

worldwide travel restrictions have increased the utilization of virtual communication and collaboration tools in all the industries (Culture Wizard, 2020). However, substantially increased virtual presence could cause more cyber conflicts, cyber incivility, and cyberbullying. Hence, organizations should be aware of novel challenges and prepare themselves against any detrimental effects of increased virtual presence.

Previous literature that focused on workplace cyberbullying restricted the studies generally with the behaviors and their prevalence, whereas most of them did not investigate the underlying antecedents of cyber aggression and cyberbullying (Privitera and Campbell, 2009; Farley et al., 2016; Jönsson et al., 2017). However, organizational policies and managerial interventions can be developed by organizations and their managerial staff, including executives, departmental and project managers and supervisors, as well as human resources departments utilizing a meticulous process toward the identification of the causes and the mechanism through which opportunities are enabled for the cyberbullies. In this regard, organizations could devise mandatory employee education that focuses on the code of conduct about the use of electronic media and exercises to strengthen empathy among team members. Employee handbooks, as addressed in Study 2, would be one of the tools that can be used to include the code of conduct to be adhered to and followed not to cause any harassment behaviors among the coworkers. However, our findings in all three studies showed that motivated offenders could exploit the opportunities that they find to cyberbully their targets. In particular, when organizations and team leaders delayed their responses to blackout these opportunities and efforts by cyberbullies, victims could not get rid of this unpleasant

situation unless they receive support from the organization, GVT leader, or teammates. Therefore, besides preventive policies and practices, organizations need to implement a proactive approach with the purpose of monitoring and detecting cyberbullying cases and, more importantly, conflicts that have the potential to escalate. New strategies can be developed by organizations to build a scoring system composed of criteria for the GVT leaders to monitor and evaluate risky situations related to the value, visibility, and accessibility factors.

Since ICTs form the backbone of GVTs, they need to be monitored closely by organizations. Organizations can prepare a guideline that depicts the pros and cons of electronic media with recommendations that target to achieve a healthy interaction among GVT members by taking into account ICTs' characteristics, the immediacy of feedback, symbol variety and online disinhibition effect (Dennis and Valacich, 1999; Suler, 2004; Bull Schaefer and Erskine, 2012). Furthermore, privacy and security-related features of ICTs play a key role as capable guardians to deter motivated offenders. For instance, as was addressed in Study 2, monitoring of communication logs of organization software can make some motivated offenders think twice while typing on IM or emails. Besides, IT departments or third-party vendors can suggest possible methods to increase security while not impeding or complicating team collaboration.

### **7.13 Conclusion**

More work is still required to understand the nature and extent of cyberbullying in global virtual teams based on empirical studies. However, workplace cyberbullying has been increasingly attracting more attention from scholars and practitioners. We expect

this dissertation to contribute to the workplace cyberbullying research through the analysis and development of a robust conceptualization for global virtual team cyberbullying based on routine activities theory and the role of ICT characteristics and team diversity.

This research creates great opportunities to understand the extent of cyberbullying in global virtual teams with their antecedents and consequences. A large volume of previous research had a consensus on the increasing extent of cyberbullying worldwide for all age groups and environments (schools and workplaces). Our research demonstrates the significance and value of cyberbullying in GVTs by corroborating the propositions and supporting hypotheses in Study 3 developed upon the findings of Study 1 and 2.

Our research helps to understand better how cyberbullying in global virtual teams affects the victimized team members and team dynamics and consequences of cyberbullying on victim's psychological, social, and economic status, and the team's productivity and effectiveness. Our research provides the opportunity to clarify the role of information and communication technologies on the occurrence of workplace cyberbullying by utilizing media characteristics, which are the immediacy of feedback, symbol variety, anonymity, and online disinhibition effect. Besides, ICTs and their features could serve as capable guardians. Therefore, our study also investigates ICTs as the inhibitors and enablers of cyberbullying in GVTs.

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APPENDIX A

PRELIMINARY HIGH-LEVEL CATEGORIES OF GVT CYBERBULLYING

INSTRUMENT

In the table below, cyberbullying and cyber incivility items have been compared in four studies.

<b>Cyberbullying Questionnaire - CBQ (Jönsson et al., 2017)</b>	<b>Workplace Cyberbullying Measure – WCM (Farley et al., 2016)</b>	<b>Bullying by e-mail, SMS, or telephone - based on Negative Acts Questionnaire-Revised (NAQ-R) (Privitera and Campbell, 2009)</b>	<b>Cyber incivility measures (Lim and Teo, 2009)</b>
<p><i>The following behaviors are often seen as examples of negative behavior in the workplace that may occur via the use of technology. When responding consider every act in relation to these eight types of technologies: Text messaging; pictures / photos or video clips, phone calls; email; chat rooms; instant messaging; websites; and social networking websites (e.g. Facebook, Twitter, YouTube). “Over the last six months, how often have you been subjected to the following negative acts related to your work through different forms of technology?”</i></p>	<p><i>Respondents were asked how often over the last six months they had experienced each cyberbullying item through technology in relation to their work context. The response options were “never”, “now and then”, “at least monthly”, “at least weekly” and “daily”.</i></p>	<p><i>Workplace bullying is repeated behavior that offends, humiliates, sabotages, intimidates, or negatively affects someone’s work when there is an imbalance of power. Both face-to-face bullying and cyberbullying are about relationships, power, and control. Workplace bullying is considered to occur when one or more individuals perceive themselves to be the target of repeated and systematic negative acts on at least a weekly basis over a period of 6 months or longer.</i></p>	<p><i>Cyber incivility is communicative behavior exhibited in computer-mediated interactions that violate workplace norms of mutual respect.</i></p>
<b>Target ignored by teammates</b>			
<ul style="list-style-type: none"> <li>• Your supervisor/colleagues are not responding to</li> </ul>	<ul style="list-style-type: none"> <li>• NA</li> </ul>	<ul style="list-style-type: none"> <li>• Opinions and views ignored.</li> </ul>	<ul style="list-style-type: none"> <li>• Not replying to your email at all.</li> <li>• Replied to your emails but did</li> </ul>

Cyberbullying Questionnaire - CBQ (Jönsson et al., 2017)	Workplace Cyberbullying Measure – WCM (Farley et al., 2016)	Bullying by e-mail, SMS, or telephone - based on Negative Acts Questionnaire-Revised (NAQ-R) (Privitera and Campbell, 2009)	Cyber incivility measures (Lim and Teo, 2009)
your e-mails or text messages.			not answer your queries. <ul style="list-style-type: none"> <li>• Ignored a request (e.g., schedule a meeting) that you made through email.</li> <li>• Paid little attention to a statement made by you through email or showed little interest in your opinion.</li> <li>• Not acknowledging that he/she has received your email even when you sent a “request receipt” function.</li> </ul>
<b>Rude messages sent to the target</b>			
<ul style="list-style-type: none"> <li>• Rude messages have been sent to you via digital media.</li> </ul>	<ul style="list-style-type: none"> <li>• Received messages that have a disrespectful tone.</li> <li>• Received rude demands from a colleague.</li> </ul>	<ul style="list-style-type: none"> <li>• Insulting / offensive remarks.</li> <li>• Humiliated / ridiculed in connection with your work.</li> <li>• Intimidating behavior.</li> <li>• Practical jokes from people you don't get on with.</li> <li>• Excessive teasing and sarcasm.</li> </ul>	<ul style="list-style-type: none"> <li>• Sent you emails using a rude and discourteous tone.</li> <li>• Said something hurtful to you through email.</li> <li>• Put you down or was condescending to you in some way through email.</li> <li>• Made demeaning or derogatory remarks about you through email</li> <li>• Inserted sarcastic or mean comments between</li> </ul>

Cyberbullying Questionnaire - CBQ (Jönsson et al., 2017)	Workplace Cyberbullying Measure – WCM (Farley et al., 2016)	Bullying by e-mail, SMS, or telephone - based on Negative Acts Questionnaire-Revised (NAQ-R) (Privitera and Campbell, 2009)	Cyber incivility measures (Lim and Teo, 2009)
			paragraphs in emails.
<b>Aggressively worded messages sent to the target</b>			
<ul style="list-style-type: none"> <li>Aggressively worded messages (e.g. capital letters, bold style or multiple exclamation marks) have been sent to you via e-mail, text messages or the like.</li> </ul>	<ul style="list-style-type: none"> <li>Received aggressively worded messages (e.g. using all capital letters, bold font or multiple exclamation marks).</li> </ul>	<ul style="list-style-type: none"> <li>Being shouted at / the target of anger or rage.</li> </ul>	<ul style="list-style-type: none"> <li>Used CAPS to shout at you through email.</li> </ul>
<b>Target excluded from work and-or social environments</b>			
<ul style="list-style-type: none"> <li>Necessary information has been withheld making your work more difficult (e.g. being excluded from e-mail lists)</li> <li>Colleagues have excluded you from the social community online (e.g. Facebook, Twitter)</li> </ul>	<ul style="list-style-type: none"> <li>Been bypassed in group communications that are relevant to your work role.</li> <li>Been sent conflicting information.</li> <li>Been the only person excluded from social communications between colleagues.</li> </ul>	<ul style="list-style-type: none"> <li>Information withheld affecting your performance.</li> <li>Being ignored, excluded, or being “sent to Coventry.”</li> <li>Key areas of responsibility removed.</li> <li>Ignored / facing a hostile reaction when you approach.</li> <li>Pressure not to claim your entitlements.</li> </ul>	<ul style="list-style-type: none"> <li>NA</li> </ul>
<b>Unreasonable work demands from and orders to the target</b>			
<ul style="list-style-type: none"> <li>NA</li> </ul>	<ul style="list-style-type: none"> <li>Received unreasonable work demands.</li> </ul>	<ul style="list-style-type: none"> <li>Ordered to do work below your level of competence.</li> <li>Exposed to an unmanageable workload.</li> <li>Given tasks with unreasonable targets / deadlines.</li> </ul>	<ul style="list-style-type: none"> <li>NA</li> </ul>
<b>Used emails instead of face-to-face communication</b>			
<ul style="list-style-type: none"> <li>NA</li> </ul>	<ul style="list-style-type: none"> <li>NA</li> </ul>	<ul style="list-style-type: none"> <li>NA</li> </ul>	<ul style="list-style-type: none"> <li>Used emails to say negative things about you that he/she would not say to you face-to-face.</li> <li>Used email for discussions that would require face-to-face dialogue.</li> </ul>

Cyberbullying Questionnaire - CBQ (Jönsson et al., 2017)	Workplace Cyberbullying Measure – WCM (Farley et al., 2016)	Bullying by e-mail, SMS, or telephone - based on Negative Acts Questionnaire-Revised (NAQ-R) (Privitera and Campbell, 2009)	Cyber incivility measures (Lim and Teo, 2009)
			<ul style="list-style-type: none"> <li>• Used emails for time-sensitive messages (e.g., canceling or scheduling a meeting on short notice).</li> </ul>
<b>Criticism of work performance of the target</b>			
<ul style="list-style-type: none"> <li>• Persistent criticism of your work or performance has been made against you via digital media.</li> <li>• Your work performance has been commented upon in negative terms on the Internet.</li> <li>• Others have commented on the Internet that you should quit your work.</li> <li>• Your mistakes or errors at work are repeatedly commented about in e-mails, text messages, or the like.</li> </ul>	<ul style="list-style-type: none"> <li>• Been unfairly blamed for work problems.</li> <li>• Had your work unfairly criticized.</li> <li>• Received messages unfairly questioning your competence.</li> </ul>	<ul style="list-style-type: none"> <li>• Excessive monitoring of your work.</li> <li>• Persistent criticism of your work and effort.</li> <li>• Repeated reminders of your errors or mistakes.</li> <li>• Hints / signals from others to quit your job.</li> </ul>	<ul style="list-style-type: none"> <li>• NA</li> </ul>
<b>Attacks against personality of the target</b>			
<ul style="list-style-type: none"> <li>• Threatening personal messages have been sent to you via digital media.</li> <li>• Threatening messages about your friends/your family have been sent to you via digital media.</li> <li>• Attacks against you as a person, your values or your personal life have been made on digital media.</li> </ul>	<ul style="list-style-type: none"> <li>• Been the subject of communications that undermine you.</li> <li>• Experienced unfair personal criticism (e.g. on your character, appearance, opinions).</li> <li>• Received messages that contain abusive language aimed at you.</li> <li>• Received threatening messages.</li> </ul>	<ul style="list-style-type: none"> <li>• Threats of violence or physical abuse.</li> </ul>	<ul style="list-style-type: none"> <li>• NA</li> </ul>
<b>Security breaches against target’s computer and accounts</b>			
<ul style="list-style-type: none"> <li>• Your computer identity has been hijacked.</li> </ul>	<ul style="list-style-type: none"> <li>• NA</li> </ul>	<ul style="list-style-type: none"> <li>• NA</li> </ul>	<ul style="list-style-type: none"> <li>• NA</li> </ul>

Cyberbullying Questionnaire - CBQ (Jönsson et al., 2017)	Workplace Cyberbullying Measure – WCM (Farley et al., 2016)	Bullying by e-mail, SMS, or telephone - based on Negative Acts Questionnaire-Revised (NAQ-R) (Privitera and Campbell, 2009)	Cyber incivility measures (Lim and Teo, 2009)
<ul style="list-style-type: none"> <li>• Viruses have intentionally been sent to your e-mail address.</li> </ul>			
<b>False statements made and spread about the target</b>			
<ul style="list-style-type: none"> <li>• Allegations about you have been made on the Internet.</li> <li>• Gossip or rumors about you have been spread on the Internet.</li> <li>• False statements about you have been spread on the Internet.</li> <li>• Jokes about you have been spread on the Internet or via e-mail to several recipients.</li> <li>• Extracts from your messages have been copied so that the meaning of the original message is distorted.</li> <li>• Offensive photos/videos of you have been posted on the Internet.</li> </ul>	<ul style="list-style-type: none"> <li>• Had negative rumors or gossip spread about you.</li> <li>• Had another organizational member copy people into messages that reflect negatively on you.</li> <li>• Had personal information shared without your permission.</li> </ul>	<ul style="list-style-type: none"> <li>• Spreading of gossip and rumors about you.</li> <li>• Allegations made against you.</li> </ul>	<ul style="list-style-type: none"> <li>• NA</li> </ul>



APPENDIX B

EXTANT STUDIES THAT UTILIZE ROUTINE ACTIVITIES THEORY TO  
EXAMINE CYBERBULLYING AND RELATED CONCEPTS

Author / Year	Sample	Dependent Variables	Independent Variables
<p><b>1. Bossler et al. (2012)</b></p>	<p>434 students in a Kentucky middle and high school</p>	<p><b><u>Online harassment victimization</u></b>            1. Posted or sent a message about you for other people to see that made you feel bad.            2. Posted or sent a message about you for other people to see that made you feel threatened or worried.            3. Sent a message to you via e-mail or instant message that made you feel bad.            4. Sent a message to you via email or instant message that made you feel threatened or worried.</p>	<ul style="list-style-type: none"> <li>• Proximity to Motivated Offenders               <ol style="list-style-type: none"> <li>1. Hours online</li> <li>2. Social networking site account*</li> <li>3. Peer online harassment*</li> <li>4. Computer deviance</li> </ol> </li> <li>• Guardianship               <ol style="list-style-type: none"> <li>1. Physical guardianship (Protective software)*</li> <li>2. Social guardianship (Computer location and peer involvement in computer crime)</li> <li>3. Personal guardianship                   <ul style="list-style-type: none"> <li>▪ respondents' knowledge of computers</li> <li>▪ willingness to post personal information online for others to view*</li> </ul> </li> </ol> </li> <li>• Suitable Target               <ol style="list-style-type: none"> <li>1. Demographic characteristics such as sex and age                   <ul style="list-style-type: none"> <li>▪ Poor academic performance (grades) *</li> </ul> </li> </ol> </li> </ul>
<p><b>2. Choi et al. (2019)</b></p>	<p>Data from the 2013 National Crime Victim Survey (NCVS) School Crime Supplement (SCS)</p> <p>5726 students between the ages of 12–18</p>	<p>Cyber and non-physical bullying victimization</p>	<ul style="list-style-type: none"> <li>• Exposure to motivated offenders               <ol style="list-style-type: none"> <li>1. The availability of illegal substances in the school environment*</li> <li>2. Students being on drugs or alcohol while at school*</li> <li>3. Gang involvement in fights or violence at school*</li> </ol> </li> <li>• Target attractiveness (Extra-Curricular Activities)               <ul style="list-style-type: none"> <li>• Spirit groups (i.e., cheerleading) and performing arts <u>increase</u> the victimization.</li> <li>• Athletics and involvement in student government <u>reduce</u> victimization.</li> </ul> </li> <li>• Capable guardianship               <ol style="list-style-type: none"> <li>1. School security</li> <li>2. Total school rules*</li> </ol> </li> </ul>

Author / Year	Sample	Dependent Variables	Independent Variables
			3. Total teacher care*
<b>3. Holt and Bossler (2008)</b>	788 college students in a southeastern university campus	Online harassment victimization	<ul style="list-style-type: none"> <li>• Computer ownership</li> <li>• Computer use               <ol style="list-style-type: none"> <li>1. Skill level</li> <li>2. Hours of work/school, non-work/school</li> <li>3. Shopping</li> <li>4. Video games</li> <li>5. Email</li> <li>6. Number of hours an individual spends in chat rooms, IRC, and IM*</li> <li>7. Programming</li> <li>8. Myspace</li> <li>9. Pirating software and media</li> <li>10. Pornography</li> </ol> </li> <li>• Involvement in computer deviance*</li> <li>• Guardians               <ol style="list-style-type: none"> <li>1. Friends deviance</li> <li>2. Anti-virus, Spybot software, Ad-aware software</li> <li>3. Microsoft Update</li> <li>4. Security Center</li> <li>5. Software firewall, Hardware firewall</li> </ol> </li> <li>• Demographics               <ul style="list-style-type: none"> <li>• Sex (being a female)*, race, age, employment</li> </ul> </li> </ul>
<b>4. Holt et al. (2016)</b>	3,226 students for Singapore primary and secondary schools	Cyber and mobile phone bullying victimization	<ul style="list-style-type: none"> <li>• Access to technology               <ol style="list-style-type: none"> <li>1. School Internet use</li> <li>2. Home Internet use*</li> <li>3. Mobile phone ownership</li> </ol> </li> <li>• Online routine behaviors               <ol style="list-style-type: none"> <li>1. Chat room use*</li> <li>2. Email use</li> <li>3. IM use*</li> <li>4. Bulletin board use*</li> <li>5. Blog use</li> <li>6. MMS texting</li> </ol> </li> <li>• Target suitability               <ol style="list-style-type: none"> <li>1. Physical bullying*</li> <li>2. School adjustment</li> <li>3. Class level*</li> <li>4. Gender*</li> </ol> </li> </ul>
<b>5. Leukfeldt and Yar (2016)</b>	9,161 respondents who are older than 15 in Netherlands	6 types of cybercrime <ul style="list-style-type: none"> <li>• Hacking</li> <li>• Malware infection</li> <li>• Identity theft</li> </ul>	<ul style="list-style-type: none"> <li>• Value               <ul style="list-style-type: none"> <li>• Financial characteristics: personal income, household income, value of financial assets</li> </ul> </li> </ul>

Author / Year	Sample	Dependent Variables	Independent Variables
		<ul style="list-style-type: none"> <li>• Consumer fraud</li> <li>• <b>Cyberstalking</b></li> <li>• <b>Cyberthreat</b></li> </ul>	<ul style="list-style-type: none"> <li>and property and amount of savings</li> <li>• Visibility <ul style="list-style-type: none"> <li>• Level of Internet usage, targeted browsing (search for news or targeted information search), untargeted surfing, e-mailing*, using MSN and Skype*, using on-line chat rooms, on-line gaming, activity on Internet forums, profile sites, tweeting* (threat), downloading, and online shopping</li> </ul> </li> <li>• Accessibility <ul style="list-style-type: none"> <li>• Operating system and Web browser</li> </ul> </li> <li>• Capable Guardianship <ol style="list-style-type: none"> <li>1. Technical capable guardianship (up-to date virus scanner)</li> <li>2. Personal capable guardianship (technical knowledge and on-line risk awareness)</li> </ol> </li> <li>• Background characteristics <ol style="list-style-type: none"> <li>1. Gender</li> <li>2. Age* (threat)</li> <li>3. Education level</li> <li>4. Work</li> </ol> </li> </ul>
<p><b>6. Marcum et al. (2010)</b></p>	<p>744 freshman students at a mid-sized northeastern university</p>	<p>Three types of cybercrime</p> <ul style="list-style-type: none"> <li>• Online sexually explicit material (e.g., pornography)</li> <li>• <b>Non-sexual harassment (e.g., unwanted emails, instant messages)</b></li> <li>• Sexual solicitation (e.g., request for either online or offline sexual interaction)</li> </ul>	<ul style="list-style-type: none"> <li>• Exposure to motivated offenders <ol style="list-style-type: none"> <li>1. General Internet use (hours / days)</li> <li>2. Types of activities (Email, IM, chat rooms*, shopping, social networking websites*)</li> </ol> </li> <li>• Target suitability <ol style="list-style-type: none"> <li>1. Private social networking website account</li> <li>2. Various types of information posted at social media*</li> <li>3. Communicating with people online who have never been met in person</li> <li>4. Voluntarily giving personal information to a person who you met online</li> </ol> </li> <li>• Lack of capable guardianship <ol style="list-style-type: none"> <li>1. Location of computer (living room*, school computer lab*)</li> </ol> </li> </ul>

Author / Year	Sample	Dependent Variables	Independent Variables
			<ul style="list-style-type: none"> <li>2. Person in the same room (parent, friend, teacher/counselor, sibling, someone else, no one*)</li> <li>3. Restrictions from parent/guardian while using the Internet (time spent online, viewing of adult websites, use of CMCs*, other, and no restrictions)</li> <li>4. Others actively monitoring Internet use by regularly checking the websites visited</li> <li>5. Blocking or filtering software</li> <li>• Control variables <ul style="list-style-type: none"> <li>1. Sex*</li> <li>2. Ethnicity</li> <li>3. Age*</li> </ul> </li> </ul>
<p><b>7. Navarro and Jasinski (2012)</b></p>	<p>935 teenagers</p>	<p>Cyberbullying</p>	<ul style="list-style-type: none"> <li>• Availability <ul style="list-style-type: none"> <li>1. Internet Usage*</li> </ul> </li> <li>• Suitability <ul style="list-style-type: none"> <li>1. Used IM*</li> <li>2. Bought things online*</li> <li>3. Research health information</li> <li>4. Research current events*</li> <li>5. Research college information*</li> <li>6. Visited movies/TV sites</li> <li>7. Used social networking sites*</li> <li>8. Downloaded a podcast</li> <li>9. Visited online chat room*</li> <li>10. Visited video-sharing site*</li> </ul> </li> <li>• Guardianship <ul style="list-style-type: none"> <li>1. Parent checks browser</li> <li>2. Parent uses filter*</li> <li>3. Parent uses software</li> </ul> </li> <li>• Control Variables <ul style="list-style-type: none"> <li>1. Gender (female)*</li> <li>2. Age*</li> </ul> </li> </ul>
<p><b>8. Ngo and Paternoster (2011)</b></p>	<p>295 college students in a southeastern university campus</p>	<p>Seven types of cybercrime</p> <ul style="list-style-type: none"> <li>• Getting a computer virus</li> <li>• Receiving unwanted exposure to pornographic materials</li> <li>• Being solicited for sex</li> <li>• Encountering phishing</li> <li>• <b>Experiencing online harassment by a stranger</b></li> </ul>	<ul style="list-style-type: none"> <li>• Exposure to motivated offenders (number of hours spent) <ul style="list-style-type: none"> <li>1. Internet</li> <li>2. Email</li> <li>3. Instant messaging* (non-stranger)</li> <li>4. Chat room</li> </ul> </li> <li>• Target suitability <ul style="list-style-type: none"> <li>1. Communicating with strangers</li> <li>2. Providing personal information</li> <li>3. Clicking / opening links</li> </ul> </li> <li>• Capable guardianship</li> </ul>

Author / Year	Sample	Dependent Variables	Independent Variables
		<ul style="list-style-type: none"> <li>• <b>Experiencing online harassment by a non-stranger</b></li> <li>• <b>Experiencing online defamation</b></li> </ul>	<ol style="list-style-type: none"> <li>1. Physical guardianship – Security software* (Having the software increased likelihood of harassment by a stranger)</li> <li>2. Personal guardianship <ul style="list-style-type: none"> <li>• Computer knowledge and skills</li> <li>• Participated in workshops or visited websites aimed at educating the public about cybercrime</li> </ul> </li> <li>• Control Variables <ol style="list-style-type: none"> <li>1. Gender</li> <li>2. Age* (stranger)</li> <li>3. Ethnicity</li> <li>4. Employment* (stranger) (Having a job decreased the likelihood of harassment by a stranger)</li> <li>5. Marital status</li> <li>6. Computer deviance* (non-stranger)</li> </ol> </li> </ol>
<p><b>9. Reynolds et al. (2011)</b></p>	<p>974 undergraduate college students at a large urban university in the Midwest</p>	<p><b><u>Cyberstalking victimization</u></b>  A respondent was coded as a cyberstalking victim if he or she had been:</p> <ol style="list-style-type: none"> <li>1. repeatedly contacted online after asking the person to stop.</li> <li>2. repeatedly harassed online.</li> <li>3. the recipient of repeated and unwanted sexual advances.</li> <li>4. repeatedly threatened with violence while online.</li> </ol>	<ul style="list-style-type: none"> <li>• Online exposure to motivated offender <ol style="list-style-type: none"> <li>1. Amount of time spent online each day</li> <li>2. Number of online social networks owned</li> <li>3. Number of times updating online social network accounts</li> <li>4. Number of online photos*</li> <li>5. Whether the respondent uses AOL Instant Messenger</li> </ol> </li> <li>• Online proximity to motivated offenders <ol style="list-style-type: none"> <li>1. Allowing strangers to access own online social networks*</li> <li>2. Number of all online social network friends</li> <li>3. Utilizing an online service to acquire online friends</li> </ol> </li> <li>• Online guardianship <ol style="list-style-type: none"> <li>1. Physical guardianship <ul style="list-style-type: none"> <li>• Whether the respondent set to limited access</li> <li>• Using an online profile tracker*</li> </ul> </li> <li>2. Social guardianship <ul style="list-style-type: none"> <li>• How likely a friend will use the online information to harass, stalk, or threaten*</li> </ul> </li> </ol> </li> </ul>

Author / Year	Sample	Dependent Variables	Independent Variables
			<ul style="list-style-type: none"> <li>• Online target attractiveness (Type of information respondents posted)               <ol style="list-style-type: none"> <li>1. Gender*</li> <li>2. Relationship status*</li> <li>3. Sexual orientation</li> </ol> </li> <li>• Online deviant lifestyle*</li> </ul> <p><u>Control Variables</u></p> <ul style="list-style-type: none"> <li>• Age</li> <li>• Ethnicity</li> <li>• Offline risky activities</li> </ul>
<p><b>10. Vakhitova et al. (2016)</b></p>	<p>Meta-analysis of five studies</p>	<p>Cyber abuse victimization (Cyber stalking and cyber harassment)</p>	<p>Findings and suggestions:</p> <ul style="list-style-type: none"> <li>• A greater use of representative probability-based samples is needed.</li> <li>• Multi-level modeling could be used to reveal any contextual effects of different variables.</li> <li>• Measurements used in the studies for the main theoretical concepts (exposure to risk, proximity to offenders, target attractiveness/suitable target, and capable guardian) may not have been appropriate. Researchers need to carefully consider definitions and operationalizations of the key theoretical concepts.</li> <li>• Cyber abuse scholarship has employed outdated interpretations of key theoretical concepts, particularly in relation to capable guardianship.</li> <li>• The role of controllers and super controllers in crime prevention requires greater consideration in empirical tests of the cyber abuse crime event model.</li> </ul>
<p><b>11. Wick et al. (2017)</b></p>	<p>298 college students at a large southwestern state university</p>	<p>Cyber-harassment of romantic partners</p> <ul style="list-style-type: none"> <li>• Victimization</li> <li>• Likelihood of perpetrating cyber harassment</li> </ul>	<ul style="list-style-type: none"> <li>• Risk propensity* (interaction effect)               <ul style="list-style-type: none"> <li>• Engaging in various risky behaviors</li> </ul> </li> <li>• Online exposure* (<i>cyberharassed</i>)               <ul style="list-style-type: none"> <li>• Usage of the Internet for activities such as shopping, banking, dating or social networking.</li> </ul> </li> <li>• Online disclosure* (<i>perpetrating</i>)</li> </ul>

Author / Year	Sample	Dependent Variables	Independent Variables
			<ul style="list-style-type: none"> <li>• Sharing various types of personal information online (e.g., his or her email address, sexual orientation, pictures of the participant engaging in risky behavior such as drinking or using drugs, or suggestive photos)</li> </ul>

## APPENDIX C

### EXTANT LITERATURE ON CYBERBULLYING AND RELATED THEMES

Authors	Year	Paper Type	Workplace	Theme	Topic
Aivazpour and Beebe	2018	Conceptual	Non-Workplace	Cyberbullying	Roles of Power and Communication Medium
Alonzo and Aiken	2004	Empirical	Non-Workplace	Online Flaming	Flaming in electronic communication
Anderson et al.	2014	Empirical	Non-Workplace	Cyberincivility	Online Incivility and Risk Perceptions of Emerging Technologies
Antoci et al.	2016	Modeling	Non-Workplace	Cyberincivility	Civility vs. incivility in online social interactions
Anwar et al.	2020	Empirical	Workplace	Workplace Cyberbullying	Mediating effect of silence and emotional exhaustion
Aricak et al.	2008	Empirical	Non-Workplace	Cyberbullying	Cyberbullying among adolescents
Balakrishnan	2015	Empirical	Non-Workplace	Cyberbullying	The roles of gender, age and Internet frequency
Baldry et al.	2015	Review	Non-Workplace	Cyberbullying	Risk of cyberbullying and cybervictimization
Ballard and Welch	2017	Empirical	Non-Workplace	Cyberbullying	Massively multiplayer online games
Barak	2005	Review	Non-Workplace	Cybersexual harassment	Sexual harassment on the Internet
Barlett and Gentile	2012	Empirical	Non-Workplace	Cyberbullying	The formation of cyberbullying in late adolescence
Barlett	2017	Conceptual	Non-Workplace	Cyberbullying	Cyberbullying theory and its application to intervention
Barlett and Chamberlin	2017	Empirical	Non-Workplace	Cyberbullying	Cyberbullying across the lifespan
Barlett et al.	2017	Empirical	Non-Workplace	Cyberbullying	Strength differential hypothesis in cyberbullying behavior
Barlett et al.	2016	Empirical	Non-Workplace	Cyberbullying	Predicting cyberbullying from anonymity
Barlinska et al.	2013	Empirical	Non-Workplace	Cyberbullying	Cyberbullying among adolescent bystanders



Authors	Year	Paper Type	Workplace	Theme	Topic
Baruch	2005	Empirical	Workplace	Workplace Cyberbullying	Adverse behavior on e-mail
Beran and Li	2005	Empirical	Non-Workplace	Cyberharassment	Cyberharassment
Beran et al.	2012	Empirical	Non-Workplace	Both (Harassment)	The need to support adolescents dealing with harassment and cyberharassment
Berne et al.	2013	Review	Non-Workplace	Cyberbullying	Cyberbullying assessment instruments
Betts	2016	Book	Non-Workplace	Cyberbullying	Cyberbullying approaches, consequences and interventions.
Biber et al.	2002	Empirical	Non-Workplace	Cybersexual harassment	Effects of gender and discourse medium
Blizard	2014	Dissertation	Workplace	Workplace Cyberbullying	Cyberbullying by students
Blizard	2016	Empirical	Workplace	Workplace Cyberbullying	Cyberbullying by students
Brack and Caltabiano	2014	Empirical	Non-Workplace	Cyberbullying	Self-esteem
Brochado et al.	2017	Review	Non-Workplace	Cyberbullying	Prevalence among adolescents
Brody and Vangelisti	2016	Empirical	Non-Workplace	Cyberbullying	Bystander intervention
Brody and Vangelisti	2017	Empirical	Non-Workplace	Cyberbullying	Topics, strategies, and sex differences
Camacho et al.	2018	Empirical	Non-Workplace	Cyberbullying	The role of perceived cyberbullying severity
Casas et al.	2013	Empirical	Non-Workplace	Both (Bullying)	Convergent and divergent predictor variables
Cassidy et al.	2014	Empirical	Workplace	Workplace Cyberbullying	Cyberbullying of university faculty and teaching personnel
Cassidy et al.	2017	Empirical	Workplace	Workplace Cyberbullying	Impact on students, faculty and administrators
Chan et al.	2019	Empirical	Non-Workplace	Cyberbullying	Cyberbullying on social networking sites
Chen et al.	2017	Review	Non-Workplace	Cyberbullying	Factors predicting cyberbullying

Authors	Year	Paper Type	Workplace	Theme	Topic
					perpetration and victimization
Chesney	2009	Empirical	Non-Workplace	Online grieving	Causes, casualties and coping strategies
Choi	2018	Empirical	Workplace	Workplace Cyberbullying	The prevention of cyberbullying in workplaces
Choi and Park	2019	Empirical	Workplace	Workplace Bullying and Cyberbullying	Effects of nursing organizational culture on bullying and cyberbullying
Choi et al.	2019	Empirical	Non-Workplace	Both (Bullying)	Cyber and non-physical bullying victimization
Citron	2009	Conceptual	Non-Workplace	Cybersexual harassment	Law's expressive value in combating cyber gender harassment
Coyne et al.	2017	Empirical	Workplace	Workplace Cyberbullying	The relationship between experiencing workplace cyberbullying, employee mental strain and job satisfaction
Coyne and Farley	2018	Book Chapter	Workplace	Workplace Cyberbullying	Cyberbullying within working contexts
Creasy and Carnes	2017	Conceptual	Workplace	Workplace Bullying and Cyberbullying	The effects of workplace bullying as mediated through virtual and traditional team dynamics
Dark	2018	Dissertation	Workplace	Workplace Cyberbullying	The perceived effects of cyberbullying in adulthood in the workplace
D'Cruz and Noronha	2013	Empirical	Workplace	Workplace Cyberbullying	Target experiences of cyberbullying at work
D'Cruz and Noronha	2014	Empirical	Workplace	Workplace Cyberbullying	Customer cyberbullying
D'Cruz and Noronha	2018	Empirical	Workplace	Workplace Cyberbullying	Target experiences of workplace bullying on online labor markets
D'Souza	2017	Dissertation	Workplace	Workplace Cyberbullying	Exploring understandings and experiences

Authors	Year	Paper Type	Workplace	Theme	Topic
D'Souza et al.	2018	Empirical	Workplace	Workplace Cyberbullying	Conceptualizing workplace cyberbullying in nursing
D'Souza et al.	2019	Empirical	Workplace	Workplace Cyberbullying	Workplace cyberbullying among nurses
Dehue et al.	2008	Empirical	Non-Workplace	Cyberbullying	Youngsters' experiences and parental perception
Del Rey et al.	2016	Empirical	Non-Workplace	Both (Bullying)	Relationship between empathy and (cyber) bullying
Dempsey et al.	2011	Empirical	Non-Workplace	Cyber aggression	Peer aggression
DeSmet et al.	2018	Empirical	Non-Workplace	Both (Bullying)	Bullying involvement among heterosexual and non-heterosexual adolescents
Dhillon and Kane	2019	Empirical	Non-Workplace	Cyberstalking	Defining objectives for preventing cyberstalking
Dooley	2009	Conceptual	Non-Workplace	Both (Bullying)	Cyberbullying versus face-to-face bullying
Duggan	2014	Not peer reviewed	Non-Workplace	Cyberharassment	Pew Research Online Harassment Survey
Erdur-Baker	2010	Empirical	Non-Workplace	Both (Bullying)	Cyberbullying's correlation to traditional bullying
Escartin et al.	2019	Book Chapter	Workplace	Workplace Bullying and Cyberbullying	Workplace bullying and cyberbullying scales
Farley et al.	2015	Empirical	Workplace	Workplace Cyberbullying	The impact of workplace cyberbullying on trainee doctors
Farley et al.	2016	Empirical	Workplace	Workplace Cyberbullying	Design, development and validation of a workplace cyberbullying measure
Farley and Coyne	2018	Book Chapter	Workplace	Workplace Cyberbullying	Intervening against workplace cyberbullying
Faucher et al.	2014	Empirical	Non-Workplace	Cyberbullying	Cyberbullying among university students
Finn	2004	Empirical	Non-Workplace	Cyberharassment	Online harassment at a university campus

Authors	Year	Paper Type	Workplace	Theme	Topic
Ford	2013	Empirical	Workplace	Workplace Cyberharassment	Media characteristics' role in psychological health
Forssell	2016	Empirical	Workplace	Workplace Bullying and Cyberbullying	Prevalence, targets and expressions
Forssell	2018	Empirical	Workplace	Workplace Cyberbullying	Gender and organizational position
Forssell	2019	Empirical	Workplace	Workplace Cyberbullying	Cyberbullying in a boundary blurred working life
Gardner et al.	2016	Empirical	Workplace	Workplace Bullying and Cyberbullying	Predictors of workplace bullying and cyberbullying
Gardner and Rasmussen	2018	Empirical	Workplace	Workplace Bullying and Cyberbullying	Relationships with health and performance among New Zealand veterinarians
Giumetti et al.	2012	Empirical	Workplace	Workplace Cyberincivility	Cyber incivility at work
Giumetti et al.	2013	Empirical	Workplace	Workplace Cyberincivility	Differential effects of incivility versus support on mood, energy, engagement, and performance
Goodboy and Martin	2015	Empirical	Non-Workplace	Cyberbullying	The personality profile of a cyberbully
Goodno	2007	Conceptual	Non-Workplace	Cyberstalking	Effectiveness of current state and federal laws regarding cyberstalking
Gradinger et al.	2010	Empirical	Non-Workplace	Cyberbullying	Definition and measurement of cyberbullying
Halder and Jaishankar	2009	Conceptual	Non-Workplace	Cybersexual harassment	Cyber socializing and victimization of women
Halder and Jaishankar	2011	Conceptual	Non-Workplace	Cybersexual harassment	Cyber gender harassment and secondary victimization
Hazelwood and Magnin	2013	Conceptual	Non-Workplace	Cyberharassment	Cyber stalking and cyber harassment legislation in the United States
Heatherington and Coyne	2014	Empirical	Workplace	Workplace Cyberbullying	Individual experiences of cyberbullying

Authors	Year	Paper Type	Workplace	Theme	Topic
Henderson and Van Hasselt	2017	Book Chapter	Workplace	Workplace Bullying and Cyberbullying	Workplace violence
Henry and Powell	2015	Conceptual	Non-Workplace	Cybersexual harassment	Technology-facilitated sexual violence and harassment against adult women
Henry and Powell	2015	Conceptual	Non-Workplace	Cybersexual harassment	Gender, shame, and technology-facilitated sexual violence
Hinduja and Patchin	2008	Empirical	Non-Workplace	Cyberbullying	Factors related to offending and victimization
Holt et al.	2016	Empirical	Non-Workplace	Cyberbullying	Risk factors of cyber and mobile phone bullying victimization
Jones	2019	Dissertation	Workplace	Workplace Cyberbullying	Job satisfaction and social self-efficacy
Jönsson et al.	2017	Empirical	Workplace	Workplace Cyberbullying	Two versions of a cyberbullying questionnaire
Khan and Daniyal	2018	Empirical	Workplace	Workplace Cyberbullying	Workplace cyberbullying of female lawyers
Kowalski et al.	2014	Review	Non-Workplace	Cyberbullying	Cyberbullying among youth
Kowalski et al.	2018	Empirical	Workplace	Workplace Bullying and Cyberbullying	Bullying and cyberbullying in adulthood and the workplace
Kowalski et al.	2019	Review	Non-Workplace	Cyberbullying	Prevalence and protective factors
Langos	2012	Conceptual	Non-Workplace	Cyberbullying	The challenge to define cyberbullying
Lapidot-Lefler and Barak	2012	Empirical	Non-Workplace	Online Flaming	Effects of anonymity, invisibility, and lack of eye-contact on toxic online disinhibition
Lapidot-Lefler and Dolev-Cohen	2015	Empirical	Non-Workplace	Both (Bullying)	Comparing cyberbullying and school bullying among school students

Authors	Year	Paper Type	Workplace	Theme	Topic
Lawrence	2015	Dissertation	Workplace	Workplace Cyberbullying	Prevalence and consequences of negative workplace cyber communications
Li	2006	Empirical	Non-Workplace	Cyberbullying	Gender differences in cyberbullying at schools
Li	2007	Empirical	Non-Workplace	Cyberbullying	Cyberbullying in schools
Li	2007	Empirical	Non-Workplace	Cyberbullying	Cyberbullying and cyber victimization
Lim and Teo	2009	Empirical	Workplace	Workplace Cyberincivility	Impact of cyber incivility on employees' work attitude and behavior
Lowry et al.	2016	Empirical	Non-Workplace	Cyberbullying	An integration of online disinhibition and deindividuation effects
Lowry et al.	2017	Empirical	Non-Workplace	Cyberbullying	Using IT design to prevent cyberbullying
Lowry et al.	2019	Empirical	Non-Workplace	Cyberharassment	An integrative theory addressing cyberharassment in the light of technology-based opportunism
MacDonald and Roberts-Pittman	2010	Empirical	Non-Workplace	Cyberbullying	Prevalence and demographic differences
Madden and Loh	2018	Empirical	Workplace	Workplace Cyberbullying	Workplace cyberbullying and bystander helping behavior
Mainiero and Jones	2013	Conceptual	Workplace	Workplace Cybersexual Harassment	Workplace romance
Mantilla	2013	Conceptual	Non-Workplace	Cybersexual harassment	Gendertrolling
Menesini	2012	Conceptual	Non-Workplace	Cyberbullying	Cyberbullying: The right value of the phenomenon
Menesini et al.	2012	Empirical	Non-Workplace	Cyberbullying	Cyberbullying definition among adolescents
Meriläinen and Kõiv	2019	Empirical	Workplace	Workplace Bullying and Cyberbullying	Bullying and inappropriate behavior among faculty members

Authors	Year	Paper Type	Workplace	Theme	Topic
Min et al.	2019	Empirical	Workplace	Workplace Cyberbullying	Three sadism measures and their ability to explain workplace mistreatment
Moore et al.	2012	Empirical	Non-Workplace	Cyberbullying	Anonymity and roles associated with aggressive posts
Mowry and Giumetti	2019	Book Chapter	Workplace	Workplace Cyberbullying	Developmental perspectives
Muhonen et al.	2017	Empirical	Workplace	Workplace Cyberbullying	The mediating roles of social support and social organizational climate
Oksanen et al.	2020	Empirical	Workplace	Workplace Cyberbullying	Social media identity bubble approach
Olweus	2018	Conceptual	Non-Workplace	Cyberbullying	Some problems with cyberbullying research
Olweus and Limber	2013	Review	Non-Workplace	Both (Bullying)	Development and challenges
Palermi et al.	2017	Empirical	Non-Workplace	Cyberbullying	Self-esteem
Park et al.	2018	Empirical	Workplace	Workplace Cyberincivility	The moderating roles of resources at work and home
Park and Choi	2019	Empirical	Workplace	Workplace Cyberbullying	Effects of workplace cyberbullying on nurses' symptom experience and turnover intention
Patchin and Hinduja	2006	Empirical	Non-Workplace	Cyberbullying	A preliminary look at cyberbullying
Patchin and Hinduja	2015	Empirical	Non-Workplace	Cyberbullying	Measuring cyberbullying
Pickens	2017	Dissertation	Workplace	Workplace Cyberbullying	Experiences of employees with cyberbullying in the workplace
Piotrowski	2012	Review	Workplace	Workplace Cyberbullying	E-harassment in modern organizations
Privitera and Campbell	2009	Empirical	Workplace	Workplace Cyberbullying	Cyberbullying
Richard et al.	2019	Book Chapter	Workplace	Workplace Cyberbullying	Cross-cultural issues

Authors	Year	Paper Type	Workplace	Theme	Topic
Ritter	2014	Empirical	Workplace	Workplace Cybersexual Harassment	Development and validation of a measure of cybersexual harassment
Runions et al.	2013	Conceptual	Non-Workplace	Cyberaggression	Integrating the medium and the message
Sabella et al.	2013	Conceptual	Non-Workplace	Cyberbullying	Cyberbullying myths and realities
Savage and Tokunaga	2017	Empirical	Non-Workplace	Cyberbullying	An integrated model of cyberbullying perpetration, aggression, social skills, and Internet self-efficacy
Schenk	2013	Empirical	Non-Workplace	Cyberbullying	Characteristics of college cyberbullies
Schenk	2008	Empirical	Non-Workplace	Cybersexual harassment	The development of a Cyber-Sexual Experiences Questionnaire
Seisco	2019	Book Chapter	Workplace	Workplace Cyberbullying	A Review of the research
Slonje and Smith	2008	Empirical	Non-Workplace	Cyberbullying	Cyberbullying
Slonje et al.	2013	Empirical	Non-Workplace	Cyberbullying	The nature of cyberbullying, and strategies for prevention
Smith et al.	2008	Empirical	Non-Workplace	Cyberbullying	Cyberbullying's nature and impact in secondary school pupils
Smith et al.	2012	Conceptual	Non-Workplace	Both (Bullying)	Definitions of bullying and cyberbullying
Snyman and Loh	2015	Empirical	Workplace	Workplace Cyberbullying	The mediating role of optimism between cyberbullying and job outcomes
Spitzberg and Hoobler	2002	Empirical	Non-Workplace	Cyberstalking	Cyberstalking and the technologies of interpersonal terrorism
Staudemüller et al.	2012	Empirical	Non-Workplace	Cyberbullying	Effects of victim's personality and properties of the incident
Sticca and Perren	2013	Empirical	Non-Workplace	Both (Bullying)	Differential roles of medium, publicity, and



Authors	Year	Paper Type	Workplace	Theme	Topic
					anonymity for the perceived severity of bullying
Tokunaga	2010	Review	Non-Workplace	Cyberbullying	Review and synthesis of research on cyberbullying victimization
Turnage	2007	Empirical	Workplace	Online Flaming	Email flaming behaviors and organizational conflict
Vakhitova et al.	2016	Conceptual	Non-Workplace	Cyber abuse	Cyber abuse victimization
van Laer	2014	Empirical	Non-Workplace	Cyberbullying	Combating cyber harassment in social media
Van Royen et al.	2017	Empirical	Non-Workplace	Cyberharassment	Reducing cyber harassment on social networking sites through a reflective message
Varjas et al.	2010	Empirical	Non-Workplace	Cyberbullying	High school students' perceptions of motivations for cyberbullying
Vranjes et al.	2017	Conceptual	Workplace	Workplace Cyberbullying	An Emotion Reaction model of workplace cyberbullying
Vranjes	2018	Dissertation	Workplace	Workplace Cyberbullying	Understanding workplace cyberbullying
Vranjes	2018	Empirical	Workplace	Workplace Cyberbullying	Construction and validation of the Inventory of Cyberbullying Acts at Work (ICA-W)
Vranjes et al.	2018	Empirical	Workplace	Workplace Cyberbullying	The role of stressor evoked emotions on exposure to workplace cyberbullying
Walters and Espelage	2020	Empirical	Non-Workplace	Both (Bullying)	The relationship between cyber and traditional forms of bullying and sexual harassment
Wang et al.	2011	Empirical	Non-Workplace	Both (Bullying)	Differential association with depression

Authors	Year	Paper Type	Workplace	Theme	Topic
Weatherbee	2006	Book Chapter	Workplace	Workplace Cyberaggression	Cyberaggression in the Workplace
Weatherbee	2007	Dissertation	Workplace	Workplace Cyberaggression	Construct development, operationalization, and measurement
Weber et al.	2019	Empirical	Workplace	Workplace Cyberbullying	Bystanders' gender stereotypic perceptions of a cyberbullying incident
Welsh and Lavoie	2012	Empirical	Non-Workplace	Cyberstalking	Risk-taking, online disclosiveness, and cyberstalking victimization
West et al.	2014	Empirical	Workplace	Workplace Cyberbullying	Cyberbullying at Work
Whitty and Carr	2006	Conceptual	Workplace	Workplace Cyberharassment and Cyberslacking	Explaining problem Internet and email behavior in the workplace
Wick et al.	2017	Empirical	Non-Workplace	Cyberharassment	Patterns of cyber harassment and perpetration among college students
Willard	2007	Book	Non-Workplace	Cyberbullying	Online social aggression, threats, and distress
Williams and Guerra	2007	Empirical	Non-Workplace	Cyberbullying	Prevalence and predictors of internet bullying
Wong et al.	2018	Empirical	Non-Workplace	Cyberbullying	Gender in cyberbullying perpetration
Wright	2018	Empirical	Non-Workplace	Cyberbullying	The role of parental mediation in cyberbullying victimization through social networking sites
Ybarra and Mitchell	2008	Empirical	Non-Workplace	Cybersexual harassment	Youth sexual solicitation and harassment
Ybarra et al.	2007	Empirical	Non-Workplace	Both (Bullying)	Overlap in Internet harassment and school bullying
Zhang and Leidner	2018	Empirical	Workplace	Workplace Cyberbullying	Neutralization of workplace bullying

Authors	Year	Paper Type	Workplace	Theme	Topic
					behaviors in the cyber world
Zych et al.	2017	Book	Non-Workplace	Both (Bullying)	Prevalence, characteristics, outcomes, and prevention
Zych et al.	2019	Review	Non-Workplace	Both (Bullying)	Protective factors against bullying and cyberbullying

## APPENDIX D

### CYBERBULLYING AND RELATED LITERATURE

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## APPENDIX E

### NOTICE OF IRB EXEMPTION FOR STUDY 2



OFFICE OF RESEARCH INTEGRITY  
2718 Beverly Cooper Moore and Irene Mitchell Moore  
Humanities and Research Administration Bldg.  
PO Box 26170  
Greensboro, NC 27402-6170  
336.256.0253  
Web site: [www.uncg.edu/orc](http://www.uncg.edu/orc)  
Federalwide Assurance (FWA) #216

**To:** Abdullah Oguz  
Info Sys and Supply Chn Mngmt  
Info Sys and Supply Chn Mngmt

**From:** UNCG IRB

**Date:** 5/28/2019

**RE:** Notice of IRB Exemption  
**Exemption Category:** 2.Survey, interview, public observation  
**Study #:** 19-0594  
**Study Title:** Cyberbullying in Global Virtual Teams

This submission has been reviewed by the IRB and was determined to be exempt from further review according to the regulatory category cited above under 45 CFR 46.101(b).

#### **Study Description:**

This doctoral dissertation investigates the cyberbullying phenomenon that have occurred in global virtual teams (GVTs). GVTs are globally dispersed, and culturally and functionally diverse teams that rely on information and communication technologies (ICTs) for communication, collaboration and coordination. This research creates an opportunity to understand the extent of cyberbullying in GVTs, where their antecedents and consequences are elaborated, and explicates the role of ICTs on the occurrence and prevention of cyberbullying.

#### **Investigator's Responsibilities**

Please be aware that any changes to your protocol must be reviewed by the IRB prior to being implemented. **Please utilize the the consent form/information sheet with the most recent version date when enrolling participants.** The IRB will maintain records for this study for three years from the date of the original determination of exempt status.

Please be aware that valid human subjects training and signed statements of confidentiality for all members of research team need to be kept on file with the lead investigator. Please note that you will also need to remain in compliance with the university "Access To and Retention of Research Data" Policy which can be found at [http://policy.uncg.edu/university-policies/research\\_data/](http://policy.uncg.edu/university-policies/research_data/).

## APPENDIX F

### NOTICE OF IRB EXEMPTION FOR STUDY 3



OFFICE OF RESEARCH INTEGRITY  
2718 Beverly Cooper Moore and Irene Mitchell Moore  
Humanities and Research Administration Bldg.  
PO Box 26170  
Greensboro, NC 27402-6170  
336.256.0253  
Web site: [www.uncg.edu/orc](http://www.uncg.edu/orc)  
Federalwide Assurance (FWA) #216

**To:** Abdullah Oguz  
Info Sys and Supply Chn Mngmt  
Info Sys and Supply Chn Mngmt

**From:** UNCG IRB

**Date:** 2/14/2020

**RE:** Notice of IRB Exemption  
**Exemption Category:** 2.Survey, interview, public observation  
**Study #:** 20-0081  
**Study Title:** Cyberbullying in Global Virtual Teams

This submission has been reviewed by the IRB and was determined to be exempt from further review according to the regulatory category cited above under 45 CFR 46.101(b).

**Study Description:**

This is the third study which a part of my doctoral dissertation which investigates the cyberbullying phenomenon that have occurred in global virtual teams (GVTs). This third study uses survey as a research methodology. First study did not require an approval from IRB because it was secondary data. Second study consisted of interviews made with GVT members (IRB study number is 19-0594).

GVTs are globally dispersed, and culturally and functionally diverse teams that rely on information and communication technologies (ICTs) for communication, collaboration and coordination. This research creates an opportunity to understand the extent of cyberbullying in GVTs, where their antecedents and consequences are elaborated, and explicates the role of ICTs on the occurrence and prevention of cyberbullying.

**Modification Information:**

- The third study which is the last study of my doctoral dissertation investigates the cyberbullying phenomenon that have occurred in global virtual teams (GVTs) by implementing a survey. GVTs are globally dispersed, and culturally and functionally diverse teams that rely on information and communication technologies (ICTs) for communication, collaboration and coordination. Survey has been distributed to student GVTs which are formed within the X-Culture (<https://x-culture.org/>). For additional data collection, survey will be distributed to real business GVTs. Team members can be present in any countries, and they will fill in the survey online.

**Investigator's Responsibilities**

Please be aware that any changes to your protocol must be reviewed by the IRB prior to being implemented. **Please utilize the the consent form/information sheet with the most recent**

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**version date when enrolling participants.** The IRB will maintain records for this study for three years from the date of the original determination of exempt status.

Please be aware that valid human subjects training and signed statements of confidentiality for all members of research team need to be kept on file with the lead investigator. Please note that you will also need to remain in compliance with the university "Access To and Retention of Research Data" Policy which can be found at [http://policy.uncg.edu/university-policies/research\\_data/](http://policy.uncg.edu/university-policies/research_data/).

## APPENDIX G

### INTERVIEW GUIDE FOR STUDY 2

The interviews will be conducted as semi-structured interviews. The questions will be open-ended. While some questions have been prepared as listed below, there is a room for improvisation during the interviews in order to steer the interview if any opportunity arises to detail interviewees' responses with probing questions or if the interviewee digresses from the main topic.

#### **DEMOGRAPHICS**

- Age:
- Gender:
- Education level:
- Nationality / Ethnicity:
- Company and its industry:
- Years of experience in total:

Interviewees will be provided with a definition of global virtual teams:

*“Global virtual teams are globally dispersed and culturally and functionally diverse teams that rely on advanced technology for communication, collaboration and coordination, and that are assembled and disbanded.”*

In the questions, “virtual team” will be used to indicate “global virtual team”.

#### **Main topics to be covered during the interview**

##### **1. Interviewee's engagement in virtual teams in general**

- How many years of experience have you had with virtual teams in general?
- Are you a member of a virtual team or more than one virtual team at the moment?

- What was your role in virtual teams? What kind of tasks and projects have you conducted in virtual teams?

Think about a virtual team where cyberbullying behaviors occurred. Your answers should be related to this team in question. Cyberbullying is defined in our research as:

*“The use of text, images or videos that contain inappropriate, offensive, hostile, negative, derogatory, or false comments using electronic forms of contact via ICTs by an individual or a group with an intent to harm or hurt to humiliate, defame, threaten, or stalk a coworker or a group of coworkers who are members of the virtual team; attack their personalities; ignore, exclude or discriminate against them in work-related or social contexts; disclose their personal information; or criticize their work performance unfairly and negatively.”*

## **2. Organization of the virtual team, and interactions among members in the team**

- How long was the duration of virtual team you were a member of?
- How many people were working in virtual team including you?
- Who were your teammates (position, industry, country, within or outside the organization, etc.)?
- Which nationalities were they from, and from which country were they participating in?
- Have you experienced any problems in your team?
  - ✓ Based on the answer provided by the interviewee, questions will be asked to get more details (e.g., surface diversity, functional diversity, deep level diversity, interpersonal conflicts, trust)



- ✓ Did you feel that there were trust issues among GVT members? Can you elaborate on them?
- ✓ Have you experienced any problems due to cultural differences, language barriers and time differences?
- Which communication media did you use in this virtual team? Which one was the most common? Which one did you prefer, and why?

**3. Negative acts experienced or witnessed in GVTs in which interviewee is a member.**

- Have you experienced any interpersonal conflicts? If yes, can you explain more about them?
- Have you witnessed any interpersonal conflicts? If yes, can you explain more about them?
  - ✓ What kind of interpersonal conflicts and personal aggression occurred? Did simple conflicts escalate to cyberbullying? If yes, how?
- Can you give examples how cyberbullies in this virtual team harassed the target?
  - ✓ What did they write or say? How was the content of the images or videos they posted?
  - ✓ What was the medium they used to cyberbully (e.g., e-mail, discussion forum, group chat, teleconference, phone call, text message)?
  - ✓ Which characteristics do you think facilitated the cyberbullying in this medium?

- ✓ When did they happen (in the beginning, while trying to decide on tasks and responsibilities, while conducting the tasks, in the termination stage of the project)?
  - ✓ Which role do you think diversity played in cyberbullying (surface, deep level, cultural, functional)?
- What do you think the reasons of these cyberbullying behaviors were?
  - ✓ How do you define cyberbullies (e.g., attitudes, characteristics, formal positions)?
  - ✓ How do you think that cyberbullies wanted to benefit from their behaviors?
    - What was the value they wanted to acquire as a result?
    - How did target attract the attention of the cyberbully?
    - How did cyberbully access the target?
- Do you think that these cyberbullying behaviors could have been avoided?
  - ✓ How could they be avoided (team leader, organizational policies, organizational culture, peer support)?
  - ✓ Were they managed well to protect the target?
- What type of consequences did you observe in target's behaviors (job satisfaction, job performance, intention to quit)?
- What was your own experience in this virtual team?
  - ✓ How do you think was the success of this team?
  - ✓ Did your teams satisfy the requirements?