

Master's Thesis
in Strategic Human Resources Leadership



**The Relationship of Team Cultural Intelligence,
Language Proficiency, Team Trust,
Transformational Leadership and Team
Creativity in Global Virtual Teams**



Nijmegen School of Management

Supervisor: Dr. Joost J. L. E. Bucker

2nd Examiner: Dr. Raymond Opdenakker

Student: Vi Lam Thi Tuong s1040964

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ABSTRACT

Over the last two years, we have intensively experienced the current virtual work situation which has already lasted longer and resulted in even more global teams working virtually today than before the pandemic. For global virtual teams (GVTs), there is limited knowledge about the use of the common language, team trust and leadership style of the leader. In this quantitative study, we aim to explore the relationship between team cultural intelligence, team trust, language proficiency and transformational leadership with team creativity. Also, we investigate the interaction effect of language proficiency, team trust and transformational leadership on the relationship between team cultural intelligence and team creativity in global virtual teams. To that end, a study of 179 employees of 42 GVTs in different countries was conducted. The SPSS was employed to process the data in terms of descriptive statistics (percentages) and inferential statistics (multiple regression analysis, T-test, ANOVA). The results reveal that team cultural intelligence, team trust and transformational leadership have a positive influence on the team creativity of global virtual teams. Additionally, team trust is a positive moderator of the relationship between team cultural intelligence and team creativity. The results also show that language proficiency does not engage team creativity. Language proficiency and transformational leadership are not moderators in the relationship between team cultural intelligence and team creativity. All in all, these findings initiate and offer important scientific and managerial implications for the corporate management and future research.

Key words: Team Cultural Intelligence – Team Creativity – Team Trust – Language Proficiency – Transformational Leadership – Global Virtual Teams

LIST OF ABBREVIATIONS

Abbreviation	Explanation
ABT	Affection-based trust
CBT	Cognition-based trust
CMB	Common method bias
CQ	Cultural Intelligence
DnI	Diversity and Inclusion
EFA	Exploratory Factor Analysis
FT	Team coexistence and meaningful participation
FTF	Face-to-face
GVTs	Global Virtual Teams
H	Hypothesis
KMO	KMO (Kaiser – Meyer – Olkin)
MCAR	Missing completely at random
OD	Openness to diversity
PCA	Principal Component Analysis
SEM	Structural Equation Modelling
TCM	Team cultural metacognition
VIF	Variance Inflation Factor
VUCA	Volatility, uncertainty, complexity, and ambiguity

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1. INTRODUCTION

Teams have always been a critical factor in any organization. Face-to-face teams (FTF teams) can generate productivity, and creativity to organisational problems more than any individual (Gladstein 1984; Hackman & Walton 1986) with its specific benefits. In the first place, when FTF teams are at the workplace, they can communicate directly. Face-to-face communication fosters better interactions than other types of communication because people can interpret the messages more accurately through body language, facial expression and tone of voice. In other words, the literature notes that computer-mediated communication can deplete emotionally because the rich nonverbal and environmental cues are not present like when interacting face-to-face (Sproull & Kiesler, 1985). In the second place, more communication among members forms personal and professional familiarity in FTF teams. Each member has a visible identity of somebody, not an invisible identity of nobody. Ultimately, this leads to increased empathy, liking (Bargh et al., 2002) and trust (Kottila & Ronni, 2008, Webster & Wong, 2008). With trust, people can feel free to share ideas, knowledge and experience and this is the catalyst of team creativity (Noor et al., 2014).

For several decades, a transition from FTF teams to virtual teams (also called global or distributed teams) has happened in many organisations (Opdenakker & Cuypers, 2019). It is primarily caused by increasing globalization which has provided favorable conditions to corporations to establish international business and set up global teams in recent years. These global teams have been working in dispersed environments and characterized by a high degree of heterogeneity in member nationality, geographical location, and languages spoken (Maloney & Zellmer-Bruhn, 2006). With the massive technological advancement and working-from-home mode especially after the Covid-19 pandemic started, global virtual teams (GVTs) have become extensively more popular in only the last several years. They are operating virtually rather than face-to-face, so they are referred to as GVTs. GVTs are generally described as culturally diverse, geographically dispersed, electronically-connected workgroups (Daim et al., 2017). Maznevski and Chudoba (2000) share a similar definition of GVTs with Daim et al. (2017) but add that GVTs use technology-supported communication more than face-to-face communication. Based on these definitions, this research defines GVTs as groups of culturally and geographically diverse members who are using computer-mediated communication technology in collaborative work. Under this definition, GVTs are composed of individuals in different countries who can speak different languages and have different cultural values, united

in a team, facilitated by technology and collaborated with each other to complete organizational tasks.

The diverse boundaries that GVTs come across create challenges for their success. Cultural values (e.g., collectivism - individualism; power distance) dampen the perception filter through which people interpret information for their understanding and decision (Adler, 1997; Hofstede, 1980). GVTs can fail to collaborate because communication, social norms and behaviors vary across cultures (Jarvenpaa & Leidner, 1999). The mentioned-above benefits of FTF teams in communication, familiarity, trust and creativity become the disadvantages of GVTs. As such, these problems can increase misunderstanding which even loads additional pressure for good collaboration, causes language barriers to the virtual communication and results in intercultural conflicts among team members.

Although GVTs have disadvantages, these inherent challenges can be solved. The concept of cultural intelligence (CQ) is defined “as an individual’s capability to function and manage effectively in culturally diverse settings” (Ang et al., 2007, p. 337). To elaborate it, CQ helps to increase effectiveness in cross-cultural communication (Bücker et al., 2014) and develop collaborative values (Adair et al., 2013). Bücker and Korzilius (2020) define team CQ as “the ability of a team to effectively process information and behave responsively in a cross-cultural environment”. In other words, to capture the dynamics at the team level, team CQ can be operationalized as a higher-order multidimensional construct (Bücker & Korzilius, 2020). As such when putting members with CQ in a team, the team CQ plays a pivotal role in mitigating intercultural conflicts. Based on our review of the literature, due to the limited data collection at team level and the emergence of team CQ with more concern, this new land is not completely explored and calls for more research. No strong attempt has been made to assess cultural intelligence of GVTs focusing on the team-level of analysis. These days, more and more GVTs are being formed in the workplace, so this gap is increasingly more important (Wanget al., 2016).

Under the growing prevalence of GVTs, the literature notes that the diverse and heterogeneous composition of GVTs is an effective structure to generate creativity among team members (Bergiel et al., 2008; Mumford, 2011, Nemiro, 2004). Leveraging team CQ can improve global virtual collaboration which enables organizations to promote creativity (Li et al., 2017). Bücker and Korzilius (2020) in their research contend that team CQ has a positive effect on team creativity. However, like other studies to use lab or university settings and students as the subjects investigated, the findings of both Li et al. (2017) and Bücker and Korzilius (2020) have some limitations. Li et al. (2017) use student subjects in a lab environment, so this factor

influences the external validity of their research findings. A large proportion of the sample in “Study 1” of Bücker and Korzilius is also university students. The level of CQ and the creative potential of these students and office workers could be different in their university setting or work environment. Thus, this study attempts to fill in this gap of literature by using office workers to test if there is a positive relationship between team CQ and team creativity in GVTs of business organizations.

Effective communication fosters creativity (Dahlin et al., 2005; Hülshager et al., 2009). Virtual communication is more challenging than face-to-face communication and more vulnerable for misunderstanding. That is why problems will arise as GVT members with limited English proficiency have difficulties in expressing themselves and influencing other team members (Davis & Bryant, 2016). If they cannot communicate, it is hard to conduct sharing information activities effectively. As a result, team creativity is at risk. Also, without communication, GVTs fail to work with each other (Jarvenpaa & Leidner, 1999) although the team has a high team CQ. For that reason, the level of language proficiency of team members facilitates their effective communication and directly influences the relationship between team CQ and team creativity. Some studies about language have contributed to literature but in another direction and not been related to creativity (Carolin & Cardon, 2020; Klitmøller & Luring, 2013; Presbitero, 2020). These studies also use graduate and undergraduate students, so these sample characteristics cause some limitations in their studies. Accordingly, Carolin and Cardon (2020) suggest that a survey in corporate contexts will be more beneficial to examine a broader view on GVT’s communication challenges. All of these respondents are from only one country, so it is hard to claim generalizability. Presbitero (2020) encourages future research to conduct with GVTs in different countries to strengthen the validity of the results. There is a dearth of quantitative studies on common language proficiency in multicultural organizations and some existing ones focus on the results of language use at the individual-level (Zander, 2005) or with inter-organizational impact on language proficiency (Barner-Rasmussen & Björkman, 2007). Therefore, a research to test how strong language proficiency is affecting the effectiveness of team CQ is necessary and will shed light on this issue, diversify and contribute to the limited literature of team CQ and team creativity. Additionally, this research can add more value if it addresses the limitation of the past studies by collecting respondents’ input from more than one country.

To influence the effectiveness of team CQ on team creativity, apart from language proficiency, team trust is another moderator as we review the literature above. Literature notes that team members with high levels of trust can support each other to increase team activity (Barczak et

al., 2010). Team trust enhances better communication, more information sharing, and greater collaboration (Calton & Lad, 1995; Whitener et al., 1998), hence leading to greater creative efforts. Many scholars share the same perspective that team trust is one of the most pivotal factors which affects team creativity (Boies et al., 2015; Jo et al., 2015; Wu et al., 2016). We can therefore infer that team trust can have a positive effect on team creativity. Yet, these studies only explore team trust in the relationship with team creativity and do not take into account the impact of other factors. In spite of the increasing number of research in team contexts, very few researchers have paid attention to the team-level CQ dynamics and its moderators' effects on team creativity. In addition, Baldé et al. (2018) also suggest future research to replicate this investigation with bigger team sizes to study intra-team relationships and examine other types of teams like virtual teams to assess if the relationships tested here can be generalized to other types of teams. We examine the impact of team trust in enhancing the relationship between team CQ and team creativity because under this globalization, the understanding of how team trust moderates the relationship between team CQ and team creativity is an important issue. In this research, we bring to light the presence of team trust as a positive moderator in the existing relationship between team CQ and team creativity in GVTs. Clarifying this problem helps to bridge the gaps in existing research on team CQ and initiates necessary guidance for effectively promoting team creativity in GVTs.

According to meta-analyses and reviews, leadership has been acknowledged as one typical determinant of trust (Burke et al, 2007; Colquitt et al., 2007; Dirks & Ferrin, 2002) and an enabler of team trust (Lee et al., 2010). Among many types of leadership, transformational leaders foster creativity and win high degrees of followers' trust, and admiration (Bass, 1997; Bass & Avolio, 1994). Avolio (2011) believes that transformational leadership fits best and adapts well in a constantly changing environment: the GVT environment. Indeed, transformational leadership nurtures a supportive climate which boosts creativity (Cerne et al., 2013). Put differently, transformational leaders create a collaborative culture which allows better communication, information sharing, and greater co-operation (Calton & Lad, 1995; Whitener et al., 1998), hence leading to more creativity. Transformational leadership is studied in the relationship with organizational innovation (Zuraik & Kelly, 2019), job satisfaction and patient safety outcomes (Boamah et al., 2018), employee work engagement (Breevaart & Bakker, 2018; Caniëls et al., 2018) and emotional intelligence (Mysirlaki & Paraskeva, 2020) but none research has explored how transformational leadership affects the effectiveness of team CQ on team creativity. The reason can be transformational leadership was first introduced in 1984; however, it did not get a lot of attention. In a five-year period, 2015 till 2020,

transformational leadership has become a hot topic with growing concerns and the number of studies has strongly increased from around 500 to nearly 2000 per year¹. Team CQ has emerged recently, we are still in the early stages of investigation of team CQ. Due to the growing importance of GVTs, there is still the need for continuous research to explore all the factors which may affect the effectiveness of team creativity as one of the most notable determinants. A research to examine transformational leadership as a moderator to influence team CQ on team creativity of GVTs will add values to the extant limited literature.

In the scope of this study, we focus on the effectiveness of team creativity of GVTs as one of the competitive advantages of most international entities. Due to the beginning transformation of virtuality, these GVTs may experience intercultural conflicts (Helen et al. 2017) due to communication barriers (Stocker et al., 2017). Zakaria et al. (2000) adds that the potential benefits of a culturally diverse team will be secured if team CQ is present in the team, it can solve intercultural conflicts and mitigate communication problems. Also, team CQ under the intervening effect of language proficiency, team trust and transformational leadership can help members feel more engaged and have a positive effect on their creative ideas (Cerne et al., 2013; Mäkelä et al., 2007).

The research question is developed as follows:

To what extent do language proficiency, team trust and transformational leadership moderate the relationship between team CQ and team creativity in GVTs?

This research contributes to practice by providing managers with guidelines for enhancing team creativity and by stressing the important situational role of language proficiency, team trust and transformational leadership which deepens our understanding of team creativity and the effectiveness of team CQ in the context of GVTs. This finding is also useful to international companies in general to boost team creativity in GVTs more efficiently to maximize team effectiveness. Furthermore, this research also makes several important theoretical contributions. Firstly, we answer the recent call for extending research about the origin of team creativity at team level beyond the context of normal traditional teams by showing that team creativity is influenced by team CQ in GVTs. This not only enriches the research concerning team creativity of GVTs but greatly expands the scope of application of team CQ, deepening our understanding of team CQ. Secondly, we extend knowledge on team CQ by showing that

¹ Source: Web of Science: https://apps- webofknowledge-com.ru.idm.oclc.org/RAMore.do?product=WOS&search_mode=GeneralSearch&SID=E5d427DbtUx1tRua5ej&qid=1&ra_mode=more&ra_name=PublicationYear&colName=WOS&viewType=raMore

language proficiency, team trust and transformational leadership have an important influence on team CQ to create team creativity. Finally, we introduce the relationship of team CQ into team creativity literature: We find that team CQ is more positive for team creativity with the significant influence of language proficiency, team trust and transformational leadership and thus not only differentiate between types of influencing moderators but also provide a framework for understanding which type of moderators has the strongest impact to foster team creativity.

The research is structured with six following parts. The introduction identifies the research problem and defines the research question. Literature review explains the theoretical underpinnings of the research and the development of hypotheses. Methodology introduces methodological approach, describes data collection and analysis process and justifies methodological choices. Data analysis describes and presents how statistical techniques are applied to investigate the hypotheses. Then we come to discussion to delve into the meaning, importance and relevance of the results. The last part of the research is the conclusion where scientific implications and practical implications are recommended and directions for future research are offered.

2. LITERATURE REVIEW

This chapter will first define the used concepts, followed by the theoretical foundation for the three posited hypotheses. This chapter casts more light on the concepts of team CQ, team creativity and its moderators, namely language proficiency, team trust and transformational leadership.

2.1. Virtuality and its possible field problems

The concept of virtuality and distant management has started either this way or other way some years ago but has not won the attention and determination of organizations due to some certain reasons until the Covid pandemic comes. Although virtuality has been widely implemented, its possible field problems are under question and the management cares much about this issue with the hope to minimize its detrimental effects. Under the current uncertainty of the Covid pandemic, it is truly unknown when it is possible to come back to face to face worklife, so an optimization of virtuality is a smart step of the organizations. A review of how our key factors around team creativity have been noted in the literature will be presented below for our awareness and understanding so that we can reflect these problems together with our

recommendations for managerial application in the end of the research and make that part more meaningful and relevant for the management of the organization.

The first problem of virtuality is distant management. Konradt and Hertel (2002) discuss that the scepticism among middle management concerning virtual collaboration is an ongoing topic because ‘they complain about the absence of instruments for leading and steering of the “invisible employees”’ (p.9, as cited in Opdenakker & Cuypers, 2019, p. 11). In a survey about managing teleworkers, concerning the problems of managers and employees after the implementation of teleworking, it indicates that 53% of managers had difficulties with leadership (Konradt & Hertel, 2002, p. 28, as cited in Opdenakker & Cuypers, 2019, p. 11). Though teleworkers and GVT members are not totally similar but they share some similarities, so I believe this fact is also important to take into account. Due to the increased difficulty in managing and inspiring members in a virtual context, researchers have suggested leaders to enhance the self-management ability of their virtual teams (Carte et al., 2006; Ziguers, 2003) and shared leadership, a process by which team members share responsibilities, influence and interact with each other to make collaborative decisions (Hoch & Kozlowski, 2014). Put differently, the leaders of virtual teams should be flexible and willing to allow members to take the lead when necessary (Eveland & Bikson, 1988; Jarvenpaa et al., 1998; Jarvenpaa & Leidner, 1999; Kayworth & Leidner 2000). However, taking into account the tasks that GVTs are in charge of are often strategic and important ones, the shared leadership logic may not be workable in the case of task complication, level of expertise required and highest responsibility to bear in the case of mistakes or wrong decisions.

The second problem of virtuality is team trust. It is another complaint that it is difficult for managers to get to know the familiarity of their virtual team as they deal with ‘invisible employees’ whom they only see face-to-face via a computer screen. Moreover, it is more difficult to coach, train or interact from a distance, so virtuality can result in salient outcomes such as decreased effectiveness and increased vulnerability of such a team (Opdenakker & Cuypers, 2019). In the study of Jarvenpaa and Leidner (1998), the results indicate that GVTs can experience a form of ‘swift’ trust, but such trust appears to be very vulnerable and temporary. These researchers advise that task communication is very critical for maintaining trust and even strengthening trust (Jarvenpaa & Leidner, 1998).

The next problem is interrelated in trust and language proficiency and it is communication. Through their communication, members can secure the complete trust of their distributed members and be acknowledged as contributing and performing members (Sarker et al., 2011).

Conversely, GVTs hardly meet each other in person, so working virtually amplifies dysfunction (Davis & Bryant, 2003). FTF teams can recognize and identify problems more easily when they are emerging while GVTs have fewer opportunities to recognize problems (Davis & Bryant, 2003). In these situations, language as a communication tool can be used to bridge the gap and it shows no help if people cannot communicate and feel uneasy to talk. English is a common language used and GVT members with limited English proficiency can have greater difficulty in expressing themselves and influencing others.

Last but not least is cultural difference which also affects virtuality. The findings in the research of Jarvenpaa and Leidner (1998) reveal that members from individualistic cultures seem more ready and willing to trust others than members from collectivist cultures in computer-mediated communication environments.

2.2. Team creativity

Technology changes and increasing competition have created a favorable environment for creativity and innovations to become very important to organizational performance (Dess & Picken, 2000; Mumford & Hunter, 2005; Shalley et al., 2004). Innovation is a successful execution of creative ideas (Gaspersz, 2005; Klijn & Tomic, 2010) while creativity is the development of creative ideas (Beesley & Cooper, 2008). The competitive advantages and business opportunities of most organizations are created by new ideas, products and services (Hon, 2012). Therefore, in order to compete in the market, most organizations encourage their employees to exercise their creativity (Nieves et al., 2014). In that sense, if the employees are willing to share their creative ideas, organizations can collect these ideas and make decisions on the potential ones to implement and become innovations. This is a very important factor because without creative ideas, there is no foundation to develop innovations. Oldham and Cummings (1996) view creativity as a multi-dimensional construct combining five skills: fluidity (the ability to produce many ideas), flexibility (the ability to imagine differences of ideas), processing (the ability to foster and boost novel ideas), originality (the ability to create unique ideas) and functionality (the ability to generate appropriate and useful ideas). Apart from the above definition which looks at creativity more on the individuals' skills, creativity is also defined as the production of a "novel product, idea, or problem solution that is of value to the individual and/or the larger social group" (Hennessey & Amabile, 2010, p. 572). As such, team creativity can be seen as "the joint novelty and usefulness of ideas regarding products, processes, and services" (Hoever et al., 2012, p. 983).

The amount of research on team creativity has strongly increased recently as organizations face complex problems beyond the capabilities of single individuals (Kozlowski & Bell, 2008; Reiter-Palmon et al., 2012; Shalley et al., 2004). Research on team creativity has focused on individual creativity as part of the team and it is first defined that fluent group processes are key to turn individual creativity into group creativity (Taggar, 2002). Previous research has summarized creativity-enabling factors in globally distributed teams including trust, support, encouragement for creativity, freedom, challenge, goal clarity, motivation, commitment, or dedication, and sufficient resources and time (Nemiro, 2002). Over the time, scholars have studied team creativity in the relationship with other additional factors, namely team diversity (Kankanhalli et al., 2006), communication and trust (Boies et al., 2015) and leadership style (Andriopoulos, 2001). However, due to difficulties in data collection at team level, very limited research has investigated the factors that influence team creativity as a variable at team level (Reiter-Palmon et al., 2008). In this research, team creativity is total team member's creativity which is produced when team members share ideas and influence each other.

2.3. Team CQ

CQ is defined differently in the existing literature. CQ is “being skilled and flexible about understanding a culture, learning more about it from your ongoing interactions with it, and gradually reshaping your thinking to be more sympathetic to the culture and your behaviors to be more skilled and appropriate when interacting with others from the culture” (Thomas & Inkson, 2003, p. 14). They believe that CQ is a broader concept compared to emotional and social intelligence because the influence of cultural factors and their impact in intercultural interactions can be covered in CQ theory (Thomas & Inkson, 2003). Furthermore, CQ steps further over existing approaches because it “provides an integrated approach to training dealing with knowledge and learning, motivation and behavior, and is built upon a unifying psychological model of cultural adaptation rather than the piecemeal and country-specific approach in training” (Earley & Peterson, 2004, p. 101). In the same view with Thomas and Inkson (2003), CQ is widened to be not about learning new cultural situations only but also creating “a new framework for understanding what he or she experiences and sees” (Earley et al., 2006, p. 6). In other words, one needs to adapt when entering new cultural situations and CQ prepares the foundation for one to understand how to act based on the culture and the context (Earley & Peterson, 2004). Additionally, Earley and Ang (2003) define four constructs of cultural intelligence including behavioral (people's actions in multicultural situations), motivational (people's interests in multicultural situations), cognitive (people's knowledge

about norms and practices in different cultures) and metacognitive (people's cultural consciousness and awareness during social interaction).

However, among all the definitions of CQ, the most referable and common definitions in the literature are ones from Ang et al. (2007) and Thomas et al., (2015). CQ is "an individual's capability to function and manage effectively in culturally diverse settings" (Ang et al., 2007, p. 336; Solomon & Steyn, 2017). Thomas et al. (2015) share the same perspective with Ang et al. (2007) when defining CQ as "the ability to interact effectively" (p. 2) but Thomas et al. (2015) are different from Ang et al. (2007) when removing motivational CQ out of their scale with the reason that "motivation is concerned with the willingness to behave in a particular way (p. 3). Derived from the definition of Ang et al. (2007), Bückner and Korzilius (2020) define team CQ as the ability of a team to effectively process information and behave responsively in a cross-cultural environment. The concept of team CQ is defined as a multi-dimensional construct operating at team level (Ang et al., 2007). In line with Ang et al. (2007), Bückner and Korzilius (2020) provide the core concept team CQ with five following dimensions, namely meaningful participation; coexistence; metacognition, openness to linguistic diversity and openness to diversity in value, visibility, and information.

2.4. The dimensions of team CQ

2.4.1. Team cultural metacognition

Being developed from the definition of Earley and Ang (2003), team cultural metacognition is team consciousness and awareness during social interactions (Adair et al., 2013). Metacognition is conceptually related to creativity and supported in some studies. For instance, according to Feldhusen and Goh (1995), metacognitive skills are crucial components of creativity. In an analysis of Armbruster (1989), it is concluded that metacognition is involved in the creative process. Additionally, Ambruster (1989) brings up a new point that individuals with their metacognitive abilities are more creative. This is also supported by many other studies. For example, Winn and Snyder (1996) explain that highly metacognitive people can monitor their progress during learning so that they can make appropriate changes and revise their strategies when they are not performing well. In line with this, Ang et al. (2007) recognize that highly culturally metacognitive people can accept cultural differences, confidently tolerate and be able to adapt to these cultural differences. From these studies, there might be a link between cultural metacognitive ability and creativity in teams. Thus, we predict that higher metacognitive teams lead to higher team creativity.

2.4.2. Team fusion: co-existence and meaningful participation

Janssens and Brett (2006) refer to fusion teamwork as a teamwork that acknowledges and respects cultural differences among team members. Crotty and Brett (2012) discuss fusion teamwork can facilitate the production of creativity when team members are encouraged to integrate cultural differences in unique ways that reveal their underlying cultural values and opinions. Janssens and Brett (2006) recommend that fusion teamwork can foster creativity through its interrelated processes, notably co-existence and meaningful participation, which respect cultural diversity, support divergent thinking, and encourage team members' involvement. The concept of co-existence is constituted in the scenarios where different approaches to teamwork and different interpretations about the task of team members should be respected and co-exist for creativity (Crotty & Brett, 2012). Crotty and Brett (2012) also conclude that diverse ideas and new perspectives of team members are useless if they are kept in mind and generate no actions, so meaningful participation facilitates the sharing of ideas and divergent opinions for discussion and debate. In this way, creativity in teams will be generated. Therefore, we predict that higher fusion teamwork (team coexistence and meaningful participation) can increase higher team creativity.

2.4.3. Team openness to diversity

Due to globalization, positive attitudes towards diversity in heterogeneous settings get more attention at both the organizational and the societal level (Lopez-Duarte & Vidal-Suarez, 2010). Openness to diversity is defined as an attitude of awareness and acceptance of similarities and differences that exist among people (Sawyer et al., 2005). Luring and Selmer (2012) investigate the following dimensions: linguistic, visible, value, and informational diversity of group-based openness to diversity.

Linguistic diversity refers to the communicative dimension of dissimilarity which is often missing in diversity research (Jonsen et al., 2011). If team members are open to linguistic diversity, they will accept others' varying language proficiency, vocabulary, and accents.

Visible diversity represents the surface level of demographic heterogeneity (Harrison et al., 1998). It means when members accept visible diversity, they show no discrimination in their attitude towards others who look different from them in terms of gender, race, age group, or dress. Another deep level of diversity is value diversity (Tyran & Gibson, 2008). Openness to value diversity is a tolerance for differences in opinions, world view, and cultural behaviors. Finally, informational diversity refers to the variations in information (Ely & Thomas, 2001) and skills of team members' professional background, education and work experience (Mitchell et al., 2009). When individuals are open to informational diversity, they are welcomed to

different information and sources of knowledge available in the group (Homan et al., 2007). Team openness to diversity is a relevant dimension of team CQ.

It has been posited that cultural diversity in conjunction with different locations and individual expertise among team members may enhance creativity (Gibson & Gibbs, 2006; Kratzer et al., 2006). Results from the research of Hu et al., (2019) confirm a positive relationship between employees' cultural intelligence and their creative performance. Based on all of the above reviewed literature, we propose this hypothesis:

Hypothesis 1: Team cultural intelligence is positively associated with team creativity in global virtual teams.

2.5. The effect between team creativity and language proficiency, team trust, transformational leadership

2.5.1. Language proficiency and team creativity

In any collaborative work, communication impacts on the effectiveness of creativity (Chamakiotis et al., 2010). It can be inferred that if team members understand each other and contribute their ideas, these diverse ideas can become a source of creativity. In multinational corporations, people come from different countries and speak different languages, so language diversity and positive diversity attitudes have become more important (Lopez-Duarte & Vidal-Suarez, 2010). Obviously, more intergroup contacts can reduce intergroup prejudice and enable better interactions (Amir, 1969; Pettigrew, 1998; Rothbart & John, 1985). In the same way, using a common language enhances mutual understanding (Maznevski & Chudoba, 2000, Zenger & Lawrence, 1989). Speaking a shared language develops gradual feelings of trust to enable further conversations and knowledge sharing (Li, 2005, Mäkelä et al., 2007). Hence, a shared language, for example English language, can create opportunities for members to familiarize each other with their communication, differences and similarities so that later these conversations can flow more naturally and with ease. The presence of a shared language is like a tool for communication and bridges the gap of differences. To specify this, Amir (1969) and Caligiuri (2000) confirm that when there are more cross-linguistic contacts between individuals, they are more open towards each other's dissimilarities. For that reason, to secure mutual understanding and facilitate information sharing, most firms need to execute a common corporate language (Marschan-Piekkari et al., 1999, Welch et al., 2001).

Indeed, if a common language policy is developed in the organizations, it is helpful for employees' understanding, interpretation and communication (Zenger & Lawrence, 1989). The

consistent use of a common language like English can break down the social boundaries (Giles et al., 1977, Luring, 2008). Continuous interactions at group level benefit individual members if they better understand all of the dialects and jargon of their counterparts (Maltz, 1996). Ulijn and Strother (1995) claim that communication success depends on effective communication skills. Thus, the ability to communicate effectively is the first condition, especially between members in global teams (Limaye & Victor 1991). Likewise, deep information sharing and effective social processes in teams can create team creativity (De Dreu et al., 2011). Put differently, poor social processes such as low trust, hindered knowledge sharing and ineffective communication can lead to negative effects on team creativity (Leung & Wang, 2015). However, in order to have efficient communication, team members must be competent in common language proficiency. By contrast, there is a dearth of quantitative studies on common language proficiency in multicultural organizations and some existing ones focus on the results of language use at the individual-level (Zander, 2005) or with inter-organizational impact on language proficiency (Barner-Rasmussen & Björkman, 2007). Accordingly, our research will fill a significant research void.

From the reviewed literature, we can infer that the higher language proficiency of team members could lead to more team creativity. Following this reasoning, it is hypothesised:

Hypothesis 2a: The level of language proficiency is positively associated with the level of team creativity in global virtual teams.

2.5.2. Team trust and team creativity

In today's turbulent workplace, trust is a key ingredient which cannot be missing in any teamwork (Mach et al., 2010). Mc Allister (1995) categorizes trust into two types: cognition-based trust (CBT) which is the factual knowledge in formal groups and affection-based trust (ABT) which is the emotional bond in informal groups. Moreover, the presence of trust is confirmed to exist in GVTs (Jarvenpaa & Leidner, 1999) and trust can prevent global virtual team members from becoming psychologically distant (O'Hara-Devereaux & Johansen, 1994). Iacono and Weisband (1997) discover that high performing virtual teams can retain trust for a longer time compared to low performing virtual teams. Many scholars in their study on virtual teams share the same perspective that trust is a crucial factor for the success of virtual teams (Powell et al., 2004; Sarker et al., 2001). Among many factors to build up trust, many studies share the same point that team trust originates from effective communication among team members (Jarvenpaa, 1998; Jarvenpaa et al., 2004; Noor et al., 2014). Also, training and trust building activities show its good effect in early stages of team development to reinforce trust (Ashmi & Kumar, 2016; Powell et al., 2004; Ryssen & Godar, 2000).

Therefore, the presence of team trust can facilitate the sharing of information and knowledge (Hu et al., 2012). Creative solutions can be created when each employee identifies the problem from various perspectives, collects diverse information and creates a variety of alternatives (Zhang & Bartol, 2010). It is inferred that there is a positive relationship between team trust and individual creativity. Woodman et al. (1993) argue that group creative behavior depends on individual creative behavior. Similarly, team creativity is a collection of all individuals' creativity. However, from the research of Baldé et al., (2018), their result challenges our expectations because team trust and individual creativity have a negative relationship. Distrust can be one of the solutions to free fixed thinking and mental monotony (Erdem, 2003). When a team member trusts his team, he is inclined to avoid conflicts with his team members (Han & Harms, 2010). This reaction of team members aligns with the social identity theory of Tajfel (1978) which is said that team trust makes responsibility to be diluted and limits impact on creativity. Baldé et al., (2018) clarify this issue in their study when indicating that with the high level of trust, team members tend to follow "groupthink", seek for group agreement, block their independent thinking and demolish their own creativity. The research shows a negative relationship between team-level trust and individual-level creativity (Baldé et al., 2018) and supports the finding of recent results that there is no positive link between team trust and creativity (Bidault & Castello, 2009; Chen et al., 2008). According to Bidault and Castello (2009), these studies strengthen the perspective that the relationship between trust and creativity remains inconclusive. Considering that the team size in the study of Baldé et al. (2018) consists of three individual members only, it may be inadequate to represent the whole team's perspective. That is the reason why Baldé et al. (2018) also suggest future research to replicate this investigation with bigger team sizes to study intra-team relationships and examine other types of teams like virtual teams to assess if the relationships tested here can be generalized to other types of teams. Additionally, trust can be assessed from horizontal direction (between employees within and between teams) and vertical direction (relationship between subordinate and supervisor), so future studies might take into account these points for measuring trust in teams (Khvatova et al., 2016). In this research, we test the positive relationship between team trust and team creativity in GVTs with bigger team size to fill in the above literature gap.

There is still other research in literature that connects team trust and team creativity. To stimulate creativity, there should be a collaborative working atmosphere with positive expectations which is developed through trust (Sankowska, 2013). The feeling of openness and trust among members is the first criterion to enable tacit knowledge to be formed (Alwis & Hartmann, 2008). When team members are trusted, it is likely that they can gain more tacit

knowledge, and consequently they are able to create new knowledge (Chung & Jackson, 2011). In other words, with high levels of team trust, the communication and exchange of ideas and viewpoints among team members takes place naturally without any reservation, so it enhances knowledge sharing process, and eventually improves team creativity (Bidault & Castello, 2009). Following this reasoning, we propose the below hypothesis:

Hypothesis 2b: The level of team trust is positively associated with the level of team creativity in global virtual teams.

2.5.3. Transformational leadership and team creativity

Leadership style is one important factor to enhance creative activities (Amabile et al., 2005; Shalley & Gilson, 2004). In recent research, transformational leadership is examined as a strong predictor of employee's creativity (Wang & Rode, 2010; Wang et al., 2013). By providing employees with constructive feedback and encouraging them to do novel solutions, transformational leadership can intrinsically motivate employees to think creatively (Gumusluoglu & Ilsev, 2009; Shin & Zhou, 2003; Sosik et al., 1997). Other influences of transformational leadership are to broaden established goals and improve confidence of employees at work (Dvir et al., 2002). Indeed, transformational leadership nurtures a supportive climate which boosts creativity (Cerne et al., 2013). Transformational leadership is positively related to employee's creativity because employees are motivated to discharge routines and do things differently (Gong et al., 2009; Mohamed, 2016; Shin & Zhou, 2003). In addition, transformational leaders exploit the creative ability of their followers to obtain innovative solutions for their routine problems (Mohamed, 2016). Likewise, Gumusluoglu and Ilsev (2009) confirm that transformational leaders allow their staff to think creatively, synthesize their problems from various angles and find novel solutions to solve them. Therefore, transformational leadership style is acknowledged to be a key enabler of employees' creativity and innovation (Jyoti & Dev, 2015; Nusair et al., 2012). These empirical studies have provided firm evidence of a strong association between transformational leadership and creativity, we propose the following hypothesis:

Hypothesis 2c: The level of transformational leadership is positively associated with the level of team creativity in global virtual teams.

2.6. The interaction effect of team CQ and team creativity moderating by language proficiency, team trust and transformational leadership

The literature reviewed helps us in realizing how team CQ could improve team creativity. However, the relationship between team CQ and team creativity is likely to be influenced by some situational factors. Previous studies (Biscaro & Comacchio, 2018; Borghini, 2005; Han & Brass, 2014; Woodman et al., 1993) have mainly focused on examining the direct impacts of other factors, namely knowledge creation, cultural integration, individual creative behavior and knowledge diversity on team creativity and ignored the possibility of moderating relationships. To fill this gap, we examine language proficiency, team trust and transformational leadership as positive moderators of the relationship between team CQ and team creativity. In this study, it is assumed that these moderators may have positive effects on that relationship for three reasons.

Firstly, common language proficiency of the team members moderates the relationship between team CQ and team creativity. According to Levin and Cross (2004), knowledge sharing can be increased when individuals speak together. For that reason, conversations through a common language support members to have more frequent contacts, quickly synthesize complicated ideas and to give immediate feedback so that information and ideas can be shared and understood better in the teams (Borgatti & Cross, 2003; Dougherty, 1992; Zenger & Lawrence, 1989). The good language ability of team members can allow them to reveal their ideas more confidently and feel engaged more in these social interactions so that creativity can be ignited. Similar to the above hypotheses, this leads us to our last hypotheses. English language proficiency could provide a shared foundation for communication and the consistent use of English in communication positively affects openness to diversity (Lauring & Selmer, 2012). Secondly, team trust influences the relationship between team CQ and team creativity. Team trust makes individuals feel free to share, transmit more information and contribute as best as they could to complete tasks and then creative outcomes can be reached (Barczak et al., 2010). Knowledge is associated with creativity (Phipps & Prieto, 2012) as ideas are created and developed through interactions among people (Popadiuk & Choo, 2006). Indeed team trust enables more active knowledge sharing and knowledge creation (Chung & Jackson, 2011) so that creative ideas can come out in the end. For example, in a study of 82 student teams, Barczak et al. (2010) conclude that there is a link between team trust and creative performance. Similarly, in another study of Klimoski and Karol (1976), it is found that teams with higher trust can outperform teams with lower trust in terms of creative solutions to solve problems.

According to Prati et al., (2003) team trust can foster communication among team members and lead to creative performance.

Thirdly, transformational leadership affects the relationship between team CQ and team creativity. Meta-analytic work has found that transformational leadership is related to creative performance (Wang et al., 2011) but this is a subject of fewer empirical investigations (Mumford et al., 2002). In a study of Tagle (1992) with community college leaders, it is found that leaders with more transformational leadership can foster a culture of effective communication among all members in all directions. Effective team communication generates team creativity. Shalley and Gilson (2004) discuss the relationship between communication within teams and team creativity and indicate that if leaders want to reinforce creativity, they need to encourage communication among team members. This can be interpreted as the link between team communication and creativity.

Thus, the above literature led us to formulate the following hypotheses:

Hypothesis 3a: Common language proficiency moderates the relationship between team CQ and team creativity so that the relationship is more positive in GVTs characterized by higher language proficiency.

Hypothesis 3b: Team trust moderates the relationship between team CQ and team creativity so that the relationship is more positive in GVTs characterized by higher team trust.

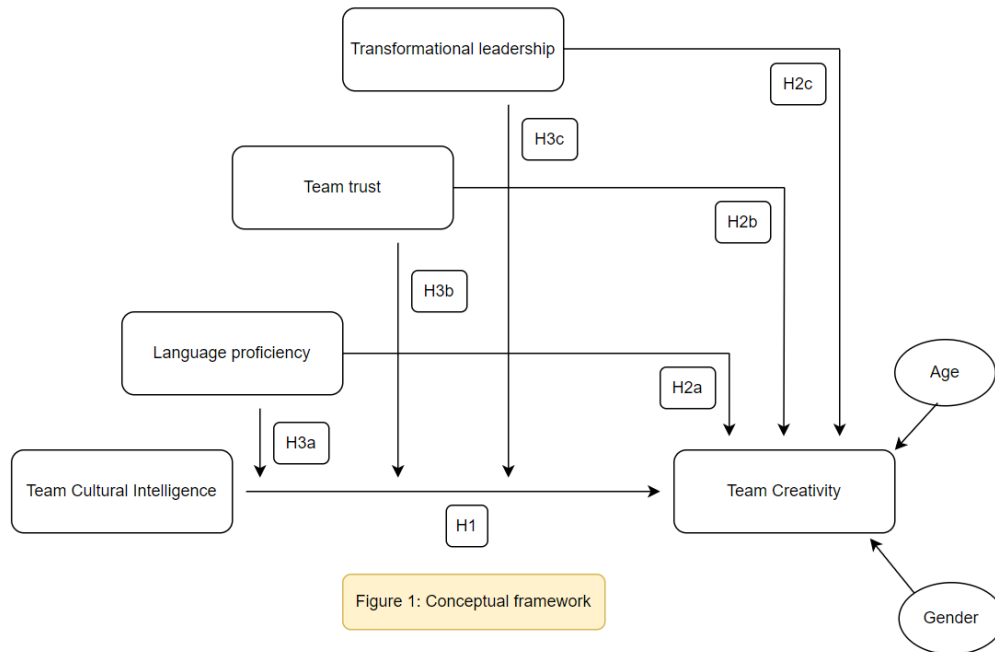
Hypothesis 3c: Transformational leadership moderates the relationship between team CQ and team creativity so that the relationship is more positive in GVTs characterized by stronger transformational leadership.

2.7. The conceptual framework

The model below (*see figure 1*) is a graphical illustration and description of the research question – how team cultural intelligence (the independent variable) may relate to team creativity (the dependent variable). Additionally, the model also focuses on how the level of language proficiency, team trust and transformational leadership moderates the aforementioned relationship, and moreover how these affect the direction and/or strengths between the involved variables.

The hypothesized relations are summarized in Figure 1. This research model consists of moderating effects. Firstly, the direct effect of team CQ and team creativity is studied (H1) and we expect that is a positive direction. Next, we analyze the positive effect of language proficiency, team trust and transformational leadership on team creativity (H2a, H2b, H2c).

Finally, it is expected that language proficiency, team trust and transformational leadership to moderate positively the interaction effect between team CQ and team creativity (3a, 3b, 3c). The conceptual framework is as follows:



3. METHODOLOGY

3.1. The research design

In order to answer the research question, we executed a research design as below.

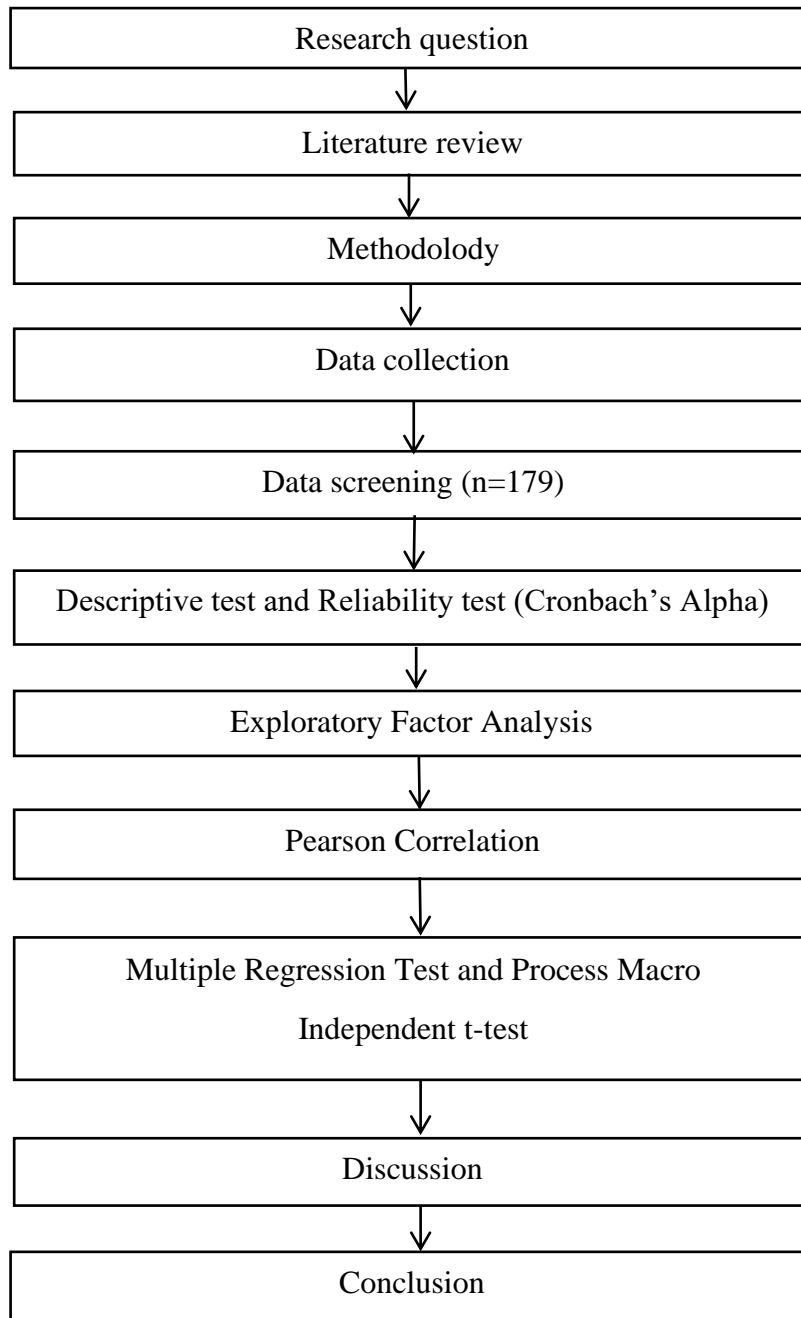


Figure 2 – The research design

3.2. Target sample

We purposely selected GVTs in international companies. The study population included employees as team members and team leaders of these GVTs in such organizations. A pretest was organized to ensure that the questionnaire was easy to understand and improve the face validity. Twenty people (our personal network) were invited to fill in the questionnaire and reported the extent to which they understood the items in the English language. Follow up calls were made to check if the respondents totally comprehended the entire questionnaire before sending it out. Email invitations were sent to global teams with at least five members per team.

There were 179 participants of 42 GVTs from 29 companies. Of the respondents 45.1% was male and 47.8% is female. It is quite balanced in terms of gender. Please see Appendix 6.

	N	%
Individual Characteristics (N=179)		
Gender		
Male	85	47.5%
Female	94	52.5%
Position		
Team member	125	69.8%
Team leader/Supervisor	45	25.1%
Contract type		
Full time contract	160	89.4%
Part-time contract 50-80%	8	4.5%
Part-time contract less than 50%	2	1.1%
Working type		
Working virtually	113	63.1%
Not working virtually	9	5%
A mixture of both	48	26.8%
Reason of working virtually		
Covid	88	49.2%
International cooperations and Covid	5	2.8%
Other reasons	4	2.2%
Frequency of working virtually		
Never	5	2.8%
Seldom	9	5.0%
About half the time	21	11.7%
Usually	44	24.6%
Always	83	46.4%
Time working with current team		
Less than 1 year	48	26.8%
From 1 to under 5 years	107	59.8%
From 5 to under 10 years	8	4.5%
From 10 to under 15 years	3	1.7%

From 15 and above 15 years	4	2.2%
Team Characteristics (N=179)		
Department		
Finance/Accounting/Tax	23	12.8%
Marketing	15	8.4%
HR/Training	6	3.4%
Logistics	8	4.5%
Products/Quality Control	49	27.4%
Customer service	17	9.5%
Legal/Compliance	5	2.8%
Sales	8	4.5%
Other departments	39	21.8%

Table 1. Sample size characteristics

The cultural diversity of this sample population is valuable to this research. These GVTs were from different countries and different industries, so their responses provided heterogeneity of working experiences, and hence contributed to the potential generalizability of the results of this study to a variety of workplace settings.

3.3. Data collection

We chose scales which were developed and used by many scholars to ensure its reliability. These Likert scales could help to increase the response quality and response rate and reduce confusion level of respondents (Sachdev & Verma, 2004). A few elements were taken into consideration when deciding on a research design: short time frame, easy accessibility, low budget, and high effectiveness. Based on these reasons, the online questionnaire was chosen to collect responses for the research. Due to time constraints, it was not possible to conduct a longitudinal study which was time consuming. As a result, the cross-sectional survey was chosen. We make sure that the contact persons in each company explained her purpose with the survey and assurance of confidentiality. We also delivered a cover letter about the research purpose and procedure. Both questionnaires were distributed through e-mail and the participants accessed anonymous links to fill in. Anonymity was ensured to all followers, not entailing any personal information.

The online questionnaire was live for approximately five months. The respondents were informed about the objectives of the research, the approximate filling out time of 20 to 25 minutes and given the assurance that their information would be used for research purposes only and not be distributed to any third party. When a respondent did not react after one week,

we sent a follow up email. The data collection was conducted in five months, from March 2021 till July, 2021.

3.4. Data analysis strategy

The data analysis process was conducted as follows.

a. Data cleaning

We performed missing value test, checked outliers and examined if data is missing at random.

b. Descriptive analysis

We performed descriptive test to understand the basic features of the data in this study.

c. Reliability analysis

Reliability and validity are important measures to assess the measurement error of the research. Reliability is the “degree to which the observed variable measures the true value and is error-free” (Hair et al., 2019, p. 8) and validity is the “degree to which a measure accurately represents what it is supposed to” (Hair et al., 2019, p. 7). The reliability included in the exploratory factor analysis is tested by assessing the Cronbach’s Alpha of each measurement scale. Therefore, it means not only the score of the original scales are taken into account but also a new value for the Cronbach’s Alpha will be re-calculated during the analysis (Hair et al., 2019) to ensure its reliability. Regarding construct validity, which is divided in two sub categories, namely convergent validity and discriminant validity, both are tested to ensure factor loadings from 0.5 and above (Hair et al., 2014).

d. Exploratory Factor Analysis (EFA)

During EFA, a principal component analysis is conducted to summarize the data and prepare for the multiple regression analysis later (Hair et al., 2019). This can be assessed by the KMO ($0.5 < \text{KMO} < 1$) and Barlett’s test of sphericity ($\text{sig.} < 0.05$). The loading on each factor is calculated and an orthogonal factor rotation (Varimax) is conducted. The aim of the factor rotation is to improve the meaningfulness as well as interpretability of the data. EFA is applied to extract the principal factors. Based on the results of the exploratory, it is decided which items should be deleted to increase reliability and improve model fit. Final factors after EFA continue with Pearson Correlation test before the regression analysis.

e. Regression and Process - Moderator analysis to test all hypotheses

In order to answer the research question, the multiple regression analysis is selected to explore the effect between four independent variables, namely team cultural

intelligence, team trust, language proficiency and transformational leadership in relation to one dependent variable – team creativity. Causality between these variables is looked into to find out the relationship between these independent variables and the dependent variable.

Assumptions

There are four assumptions that need to be taken into account before conducting a regression analysis. The first assumption to be met is the linear relationship between the variables (Hair et al., 2019). The second assumption is the constant variance of the residuals which should be tested to indicate whether the data is homoscedastic or heteroscedastic. The aim is homoscedasticity because this means that the residuals are equally distributed (Hair et al., 2019). The third assumption is the independence of the residuals. All independent variables should be independent and not intercorrelated with each other to avoid multicollinearity (Hair et al., 2019). If the variance inflation factors (VIF) exceed 10, it is regarded as indicating multicollinearity. However, in weaker models values above 2.5 may bring more attention. The last assumption is that the variables need to be distributed normally. It means the skewness and kurtosis can be examined in order to conclude whether the residuals are distributed normally. When the skewness divided by the standard error of the skewness is smaller than |2|, and the kurtosis divided by the standard error of the kurtosis is smaller than |2|, the criterion of normality is met (Field, 2017).

Estimating the regression model and assessing overall fit

First of all, a regression analysis is run for each independent variable together with the dependent and control variables. Then, Process – Moderator technique is employed to test the interaction effect between independent, dependent, control variables and each moderator.

It is important to check the sig value of F test (smaller than 0.05 to be significant) in ANOVA table and the adjusted R^2 . Both are used to test the statistical significance of the overall model and generalizability. The adjusted R^2 takes the complexity of the model into account and assumes that every independent variable in the model helps to explain variation in the dependent variable. It prevents the risk of adding more independent variables but these do not contribute to predicting the dependent variable. In multiple regression, the beta coefficient needs to be analyzed because it shows the relative importance of the independent variables on the dependent variable in the analysis (Hair et al., 2019). Additionally, independent variables should not be

intercorrelated with one another. In order to check the multicollinearity, VIF needs to be taken into account. Suggested thresholds (VIF values of 3 to 5) can indicate estimation problems (Hair et al., 2019).

f. Independent t-test

We have both team leaders and team members in our dataset. The independent t-test is employed to see the consistency of their responses.

3.5. Measurement scales

There are two main parts in the survey questionnaire. The demographic part includes gender, age, their current working mode, company name, department name, team name, and questions regarding common language. The main part of the questionnaire consists of the selected team scales adopted from previous research, ensuring that they had been previously tested. According to Adadan and Savasci (2011), Cronbach's Alpha statistics are related to both reliability and internal consistency. Cronbach's Alpha values of 0.6 to 0.7 will indicate acceptable internal consistency, and 0.8 or greater show a very good level.

3.5.1. Team creativity scale

We use the scale of team creativity from the research of Bückner and Korzilius (2020). There are two items representing team creativity which are assessed on 7-point Likert scales (1= strongly agree to 7= strongly disagree). Cronbach's Alpha is acceptable ($\alpha = 0.64$), however, it is sufficient for exploratory research (Hair et al., 2019).

3.5.2. Team CQ scale

We use the scale of team CQ from the research of Bückner and Korzilius (2020). This cultural intelligence is measured on the scale developed by Bückner & Korzilius (2021), consisting of 21 items on a 7-point Likert scale (1= strongly agree to 7= strongly disagree) on three dimensions: openness to diversity, meaningful participation and cultural metacognition. The Cronbach's Alpha was high ($\alpha = 0.91$). Please see Appendix 1.

3.5.3. Language proficiency scale

We use a five-item scale of self-perceived English language proficiency which Liu and Jackson (2008) provided. Respondents rate their own listening, reading, writing, communication, and overall English language proficiency on seven-point Likert-type scales (1= very low to 7= very high). The Cronbach's Alpha was high ($\alpha = 0.97$).

3.5.4. Team trust scale

This construct is assessed by the team trust scale with five items by De Jong and Elfring (2010). The answers are designed on a seven-point Likert-scale (1= strongly agree to 7= strongly disagree). The Cronbach's Alpha was high ($\alpha = 0.91$).

3.5.5. Transformational leadership scale

Transformational leadership is measured by “The Multifactor Leadership Questionnaire (MLQ-5X)”, a well-known scale which has been translated into many languages and adopted by many researchers around the world. This scale is used to assess transformational and transactional leadership behavior (Avolio & Bass, 2004; Bass & Avolio, 2000). Their effectiveness has been acknowledged in several meta-analyses (Judge & Piccolo, 2004; Lowe et al., 1996). We use the part related to transformational leadership only. The transformational leadership part consists of five following items. First, “Idealized Influence attributes” concerns the attribution of charisma to the leader. Second, “Idealized Influence (behavior)” highlights a collective sense of mission and values of the leaders as well as how they take action upon these values. Third, “Inspirational Motivation” is about the articulation and representation of a vision by the leader. If the leaders look into the future with a positive attitude, they will inspire and motivate their staff. Fourth, “Intellectual Stimulation” refers to challenges to the members’ beliefs and solutions they propose. Finally, “Individualized Consideration” considers personal needs of followers to develop their strengths.

This is a five-point Likert-scale (1= strongly disagree to 5= strongly agree). Cronbach's Alpha was high ($\alpha = 0.93$).

3.6. Control variables

Ensuring that differences in team creativity between global virtual teams come from their differences in cultural intelligence and not those in demographics, this thesis controls the following variables, namely age and gender. Regarding age, we allowed the participants to fill in their age on a ratio scale. Gender is a dummy variable with 0 if the respondent is female and 1 if male.

3.7. Quantitative research biases – Preventive actions

Method bias can affect validity, reliability and the covariation between latent constructs, so MacKenzie and Podsakoff (2012) summarize reasons that lead to method bias. For example, the respondents are incapable or find questions too difficult to respond accurately. Also, the questions give them no strong motivation to give accurate feedback or the researcher makes questions simpler for respondents. Several researchers (Bagozzi 1984; Baumgartner & Steenkamp 2001; Podsakoff et al. 2003; Podsakoff et al. 2012; Williams et al. 2010) have concluded that in order to control method biases, researcher can statistically control the effects of method biases after data collection or mitigate their effects through the careful design of the study’s procedures. Relevant remedies are undertaken in our study during the process of data collection and data analysis process to minimize the risk of various biases.

Firstly, this study was able to avoid the issue of low ability. Several researchers (Krosnick & Alwin 1987; Krosnick, 1999; Schuman & Presser, 1981) have indicated that to mitigate the issue of low ability either in verbal skills, education, or cognitive sophistication, researchers need to ensure that the questionnaire is comprehensible to the respondents and the questionnaire set should be assessed through pre-test. As mentioned before, the questionnaire was sent to 20 people in our network as a pre-test. Through this pre-test, respondents' evaluation apprehension was collected for improvement purpose and timely revision before we sent the survey to the target respondents.

Secondly, to reduce the risk of social desirability bias (Podsakoff & Organ, 1986), the respondents were informed that the survey results served for research purposes only and their answers were kept confidential. We analyzed their useful inputs and discussed findings to consult the efficient management of GVTs in their organizations. With their clear understanding about the academic purposes and good objectives of the research, there was a collaboration from the respondents, so social desirability bias and potential response bias could be avoided (Podsakoff et al., 2003).

Thirdly, we avoided the lack of experience thinking about the topic. As MacKenzie and Podsakoff (2012) suggest, it is very important to choose the right respondents who have the necessary experience thinking about the issues of interest in the questionnaire. We clarify the topic clearly with the contact person and the team leaders to choose only members in GVTs who have adequate experience to participate in the survey.

Finally, we took into account statistical control during the analysis for her execution to avoid common method bias. Podsakoff et al. (2012) advise that researchers try to use the directly measured latent factor technique (Bagozzi 1984; Podsakoff et al. 2003; Williams et al. 1996) or the measured response style technique (Baumgartner & Steenkamp 2001; Weijters et al. 2008). According to Podsakoff et al. (2012), these techniques can statistically identify the nature of the method bias. If the source of the method bias is not possible to specify or measure, it is recommended to use the common method factor technique (Bagozzi 1984; Podsakoff et al. 2003).

3.8. Research ethics

Bryman and Bell (2011) contend that there are following ethical principles in business research. First, authors need to guarantee the respondents that they will not be harmed as a result of their participation. For this reason, this survey is conducted anonymously and all names or any further information regarding a specific respondent are deleted to ensure that none of the respondents can be recognized.

Second, all participants need to give their consent and no data collection without the consent of participants is collected because they are not forced to answer the questionnaire.

Third, researchers should not invade the privacy of any participants (Bryman & Bell, 2011). The only source of data collection for this research is a voluntary web-based survey. Also, the respondents can decide how much information they want to share to ensure that there is no invasion of their privacy.

Finally, researchers should be honest with the objective of their research (Bryman & Bell, 2011). Every participant who is interested in the research topic can receive further information and a copy of the final document. Besides, at the beginning of the survey, the research objective is always presented. Thus, there will be no deception.

4. RESULTS

In this chapter, the results of the data analysis are presented.

4.1. Data screening

We have conducted the data screening process as below to ensure the data is usable, reliable, and valid.

Sample check

For multiple regression, the first criterion is a sample size of at least 50 and preferably 100 (Hair et al., 2019). The minimum ratio of observations to variables is 5:1 which means that at least 5 observations per variable need to be included in the model (Hair et al., 2019). The preferred ratio is 15-20:1 because this leads to more significant results and higher degrees of freedom (Hair et al., 2019). Our sample size of 179 met the rule of thumb.

The second criterion that needs to be considered is the nature of the variables. Both the independent variable(s) and the dependent variable need to be of metric measurement (Hair et al., 2019). The independent variables need to be of metric measurement (Hair et al., 2019). All of the independent and dependent variables in this study meet these requirements because they make use of Likert scales.

Missing value analysis

This research has a sufficient number of respondents (182). A missing value analysis is run. There are three responses missing 47.5% and 30%. We decided to remove these three responses out of the collected data instead of using solutions to replace missing data because the missing percentage is too much. Our sample size of 179 met the rule of thumb.

Then the missing value analysis is run again. For each variable in this study, the missing scores are lower than 5% for all variables except Age (5%) and Gender (5.6%). This missing percentage is in principle no problem (Field, 2017).

Next, we performed MCAR test to examine the randomness of the missing data. The MCAR test is not significant (p value = 0.05). Basically, non-significant MCAR Test indicates that we have the randomness of missing values. This result concludes that missing data is completely at random so as not to cause any problems in estimation or interpretation. With the result of MCAR, it is possible to replace the missing values for Age (10 missing values- Mean) and Gender (9 missing values - Median). Please see Appendix 7.

Common Method Bias (CMB)

Harman's single factor score is employed to test CMB. CMB describes the measurement error caused by the sociability of respondents who want to provide positive answers. If the total variance for a single factor is smaller than 50%, it means that CMB does not affect the data and the results (Mat, 2014). A single factor is extracting 32.5% of total variance. It is concluded that there is no threat of a common bias method in our data. Please see Appendix 7.

Outliers

We detect the outliers in our data using Boxplot (run Explore). Although some outliers are found in the data, the number of outliers is not big compared to our big sample size. These outliers reflect the difference in opinion of a small group of members compared to the majority. As the Cronbach's Alpha test of all variables indicates a very good level of internal reliability, we decided to keep the samples with outliers in our analysis.

Normality

Regarding normality, all of the variables have mean values either greater or smaller than median, it indicates the distributions are negatively or positively skewed (please see Appendix 7). In addition, the skewness divided by the standard error of the skewness should not outrun $|2|$ and the kurtosis divided by the standard error of the kurtosis should also not outrun $|2|$ as Field (2017) advised. It is found that all different variables violated this criterion. This happens because the research uses Likert scale. And a Likert scale is basically an ordinal scale. It can generate approximately normal distributed data or not normal distributed data because strictly speaking, it is not a continuous scale (Jaminsson, 2004; McLeod, 2008; Wu & Leung, 2017). Therefore, we can conclude that none of the variables are distributed normally. However, this skewness is not that problematic to conduct a proper Factor Analysis.

4.2. Analysis

4.2.1. Cronbach's Alpha - Internal Reliability

Using the Cronbach's Alpha test can provide evidence that the components of the scale are sufficiently intercorrelated and that the grouped items measure the underlying variable. Cronbach's Alpha is used to measure internal reliability of data and remove garbage items if the overall reliability can be improved. Running Cronbach's Alpha before EFA helps to identify garbage items which can create artificial factors in EFA. Hair et al. (2019) advised not to include many variables and expect factor analysis will figure it out because by doing so, the possibility of poor results is very high. "The quality and meaning of the derived factors reflect the conceptual underpinnings of the variables included in the analysis" (Hair et al., p.97, 2019). Only two variables are removed (Team CQ13 and Trust 2). These final items will move forwards with EFA. (Please see Appendix 8: Cronbach's Alpha).

Variables	Items	Cronbach's Alpha
Team CQ	Team CQ 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14, 15, 16, 17, 18, 19, 20, 21	0.938
Team Creativity	Creativity 1, 2	0.710
Language proficiency	Language 1, 2, 3, 4, 5	0.952
Transformational leadership	Leadership 1, 2, 3, 4, 5	0.860
Team trust	Trust 1, 3, 4, 5	0.828

Table 2. The Cronbach's Alpha result

4.2.2. Exploratory Factor Analysis

The research aims to find an underlying dimensional structure and interrelationships between variables, so the overall objective of my analysis is data summarization. Principal Component Analysis (PCA) is applied to employ a minimum number of factors to account for maximum variance. This technique has the biggest total variance and it can explain the primary data the most.

Team CQ

There are sufficient correlations between the items to perform a factor analysis. Barlett's test of sphericity is significant at alpha 0.000 and KMO test is above 0.5 (KMO = 0.920). The factor solution consists of three factors which together explain 60.8% of the variance.

There are three factors to be extracted and they belong to three dimensions as mentioned in the theory: Team Openness to diversity (Team OD): Team CQ 12, 14, 15, 16, 17, 18, 19, 20, 21; Team cultural metacognition (TCM): Team CQ 1, 2, 4, 5, 6, 8. Team coexistence and meaningful participation (FT): Team CQ 3, 7, 9, 10, 11. It means that this scale is not an

unidimensional scale. The only difference is Team CQ 4 and 8 should load on FT as the theory but in fact it is loaded on TCM with 0.67 (Team CQ4) and 0.51 (Team CQ8). These two variables are related to the team using a combination of norms or practices from different members' culture. Also, TCM is about cultural metacognition, so it is possible that these two items can fit better with TCM than FT. Please see Appendix 9.

Team Creativity

KMO needs to be $0.5 \leq KMO \leq 1$ and Bartlett needs to be significant. KMO shows whether our sample adequately represents the population so this is an important criterion to be met (Field, 2017). The closer to 1 KMO is, the better. Bartlett tests whether there are correlations in your sample (Field, 2017). There is a need to have correlations in order to conduct a factor analysis and therefore the null hypothesis should be rejected. As can be seen below, KMO is 0.50 which is sufficient. Bartlett is 0.000 which is smaller than the alpha of 0.05 and therefore the null hypothesis will be rejected. So, both the criteria of KMO and Bartlett have been met.

There are only two variables in this scale and one factor extracted can explain 77.4% of the variance. Having only one factor indicates that all items fit onto a single theoretical construct. In other words, it means it is an unidimensional scale and no need to rotate to reduce correlation. It fits the original scale. Please see Appendix 9.

Language Proficiency

All statistical criteria have been met. Bartlett's Test of Sphericity is significant ($p < 0.05$) and $KMO > 0.50$ (KMO 0.858). One factor is extracted and explained variance is 84.1%. Having only one factor indicates that all items fit onto a single theoretical construct. In other words, it means it is a unidimensional scale. It fits the original scale. Please see Appendix 9.

Transformational Leadership

There are sufficient correlations between the items to perform a factor analysis. KMO is above 0.5 (KMO 0.825) and Bartlett is significant (sig .000). One factor is extracted and explained variance is 64.4%. Having only one factor indicates that all items fit onto a single theoretical construct. In other words, it means it is a unidimensional scale. It fits the original scale. Please see Appendix 9.

Team Trust

There are sufficient correlations between the items to perform a factor analysis. KMO is above 0.5 (KMO 0.779) and Bartlett is significant (sig 0.000). One factor is extracted and explained variance is 67.2%. Having only one factor indicates that all items fit onto a single theoretical construct. In other words, it means it is a unidimensional scale. It fits the original scale. Please see Appendix 9.

To sum up, after EFA, none items are removed from the constructs. Below is the list of final variables and items.

Variables	Items
Team CQOD	Team CQ 12, 14, 15, 16, 17, 18, 19, 20, 21
Team CQFT	Team CQ 3, 7, 9, 10, 11
Team CQTCM	Team CQ 1, 2, 4, 5, 6, 8
Team Creativity	Creativity 1, 2
Language proficiency	Language 1, 2, 3, 4, 5
Transformational leadership	Leadership 1, 2, 3, 4, 5
Team trust	Trust 1, 3, 4, 5

Table 3. The list of variables and items after EFA

4.2.3. Pearson correlations

After EFA, Team CQ shows that there are 3 factors including CQ OD, CQ FT and CQ TCM. As part of doing a multiple regression analysis, it is decided to run Pearson Correlation to test if there are any correlations among these three variables.

From the output, there is a correlation between Mean Creativity and Mean OD, Mean FT and Mean TCM ($p < 0.01$). Their correlations are moderate ($r.468$, $r.428$ and $r.397$).

Mean OD, Mean FT and Mean TCM are significantly correlated with each other ($\text{sig} < 0.01$). Their correlations are strong because $r > 0.5$ and it can cause multicollinearity. This result leads to the decision not to run regression with these three means but use team CQ total (also called CQ total in all the output tables). Please see Appendix 10.

Variables	Items
Team CQ Total	CQ 12, 14, 15, 16, 17, 18, 19, 20, 21, 3, 7, 9, 10, 11, 1, 2, 4, 5, 6, 8
Team creativity	Creativity 1, 2
Language proficiency	Language 1, 2, 3, 4, 5
Transformational leadership	Leadership 1, 2, 3, 4, 5
Team trust	Trust 1, 3, 4, 5

Table 4. The list of final variables and items after Pearson

4.2.4. Assumptions

Linearity

From the matrix scatter plot, we see some kind of linearity in most of the data. In addition, the scatterplot shows a linear negative effect which means the assumption of a linear relationship is met.

Equal variance of the residuals

The points in this scatterplot do not form a funnel. The points do not become more spread out across the graph. The funnel shape is a typical form of heteroscedasticity which means increasing variance across the residuals (Field, 2017). The observed values of these variables are fairly evenly distributed. Also, our VIFs are always < 2 . The assumption of homoscedasticity is satisfied. Please see Appendix 11.

Independence of the residuals

The Durbin- Watson statistics can range from 0 to 4 and a value of 2 can indicate that there is no correlation between the residuals, zero autocorrelation (Field, 2017). In other words, our Durbin-Watson is at 1.960, approximately 2 and it means that our data meets this criterion because there is no independence of residuals. Please see Appendix 11.

Normality of the residuals' distribution

The best test for normally distributed errors is a normal probability plot. If the dots fall on the diagonal line, the data is normally distributed. If there are more than one predictor in the model, there should be no perfect linear relationship (Field, 2017). In this study, there are more than one predictor. Our residuals are more or less on the line, so it is normally distributed. We meet this assumption as Field (2017) mentioned. Please see Appendix 11.

4.2.5. Multiple regression analysis

Hypotheses 1, 2a, 2b and 2c were examined separately by the multiple regression analysis. Hypotheses 3a, 3b and 3c were tested with Process due to the interaction effect. The control variables gender and age were included in all analyses.

Model 1: Hypothesis 1: Team cultural intelligence is positively associated with team creativity in global virtual teams.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.496	.246	.233	.74873	1.967

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	31.956	3	10.652	19.001	.000
	Residual	98.106	175	.561		
	Total	130.061	178			

From the model summary, we can see that the explanatory power of this model is quite weak since the adjusted R square (R^2) has a value of .233. This means that 23.3% of the variance in our dependent variable team creativity is explained by the entered predictors in the model. 95% confidence interval or 5% level of the significance level is chosen for this study. Thus, the p-value should be less than 0.05. The result is significant, $F(3,175) = 19.001$, $p < .001$. In the coefficient table, only team CQ total has a significant and positive effect on team creativity, ($b = .594$, $\text{sig} < 0.05$). The greater the team CQ total is, the higher the team creativity is. Thus, a higher level of team CQ total is associated with higher team creativity. Other variables are not significant, it means they are not influencers of team creativity. In addition, we check multicollinearity. The variable team CQ total has a $VIF < 2$, and therefore indicates no multicollinearity. The model has a standard normal distribution. The histogram is symmetrical and approximately bell-shaped. Please see Appendix 12.

Conclusion: Hypothesis 1 is accepted. There is sufficient evidence to support a conclusion that team cultural intelligence is positively associated with team creativity in global virtual teams.

Model 2a – Hypothesis 2a: The level of common language proficiency is positively associated with the level of team creativity in global virtual teams.

Model Summary					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.104	.011	-.006	.85744	1.814

ANOVA						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.401	3	.467	.635	.593
	Residual	128.660	175	.735		
	Total	130.061	178			

From the model summary, the explanatory power of this model is negative, since the adjusted R^2 has a value of -.006. Negative adjusted R^2 means insignificance of explanatory variables. In other words, the model is not explained by the entered predictors. This is a worse fit model. From the ANOVA table we see that our model is not significant, $F(3,175) = .635$, $p > 0.05$. In the coefficient table, we see that all of the variables are not significant with $p > 0.05$. It means they are not influencers of Team Creativity. Please see Appendix 13.

Conclusion: Hypothesis 2a is not accepted. There is sufficient evidence to support a conclusion that the level of common language proficiency is not associated with the level of team creativity in global virtual teams.

Model 2b - Hypothesis 2b: The level of team trust is positively associated with the level of team creativity in global virtual teams.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.451	.204	.190	.76928	1.916

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	26.499	3	8.833	14.926	.000
	Residual	103.562	175	.592		
	Total	130.061	178			

This model has an adjusted R^2 of 0.190. This means that only 19% of the variance in our dependent variable team creativity is explained by the entered predictors in the model. The explanatory power is very weak. The result is significant, $F(3,175) = 14.926$, $p < .001$. In the coefficient table, team trust has a significant and positive effect on team creativity, ($b=.534$, $\text{sig} < 0.05$). Thus, the higher level of team trust is associated with higher team creativity. Team trust has a VIF < 2 , and therefore indicates no multicollinearity. The model is standard normal distribution and has no violations. Please see Appendix 14.

Conclusion: Hypothesis 2b is accepted. There is sufficient evidence to support a conclusion that the level of team trust is positively associated with the level of team creativity in global virtual teams.

Model 2c- Hypothesis 2c: The level of transformational leadership is positively associated with the level of team creativity in global virtual teams.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.360	.129	.114	.80445	1.909

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	16.811	3	5.604	8.659	.000
	Residual	113.250	175	.647		
	Total	130.061	178			

This model has an adjusted R^2 of 0.114. This means that 11.4% of the variance in our dependent variable team creativity is explained by the entered predictors in the model. The result is significant, $F(3,175)=8.659$, $p < .001$. In the coefficient table, we see that transformational

leadership has a significant and positive effect on team creativity, ($b=.432$, $\text{sig}<0.05$). Thus, the higher level of transformational leadership is associated with higher team creativity. Transformational leadership has a VIF <2 , and therefore indicates no multicollinearity. The model is standard normal distribution and has no violations. Please see Appendix 15.

Conclusion: Hypothesis 2c is accepted. There is sufficient evidence to support a conclusion that the level of transformational leadership is positively associated with the level of team creativity in global virtual teams.

Model 3a - Hypothesis 3a: Common language proficiency moderates the relationship between team CQ and team creativity so that the relationship is more positive in GVTs characterized by higher language proficiency.

	R2-chng	F	df1	df2	p
X*W	.0072	1.6765	1.0000	173.0000	.1971

The result shows that this interaction effect is not significant because $\text{sig}>.05$. It means that the relationship between team CQ and team creativity does not differ for the degree of language proficiency that team members have. Language proficiency does not moderate this relationship. Please see Appendix 16.

Conclusion: Hypothesis 3a is not accepted. There is sufficient evidence to support a conclusion that common language proficiency does not moderate the relationship between team CQ and team creativity so that the relationship is not more positive in GVTs characterized by higher language proficiency.

Model 3b - Hypothesis 3b: Team trust moderates the relationship between team CQ and team creativity so that the relationship is more positive in GVTs characterized by higher team trust.

Model Summary

R	R-sq	MSE	F	df1	df2	p
.5450	.2971	.5285	14.6230	5.0000	173.0000	.0000

Model

	coeff	se	t	p	LLCI	ULCI
Int_1	.2023	.0948	2.1344	.0342	.0152	.3894

The interaction term reflects the moderating effect of a variable. Interaction effect (Int_1): $b = .2023$, $\text{sig} < .05$. The result shows that this interaction effect is significant because $\text{sig} < .05$. Its coefficient is $.2023$. Team trust is a moderator. The positive value of coefficient means that higher team trust can result in stronger effect of team CQ on Team creativity. In addition, in model 1, team CQ can explain 23.3% of team creativity and now in model 3b by adding the team trust into the model, adjusted R^2 is increased. This new model 3b can explain more of the variance of the dependent variable, 29.7% instead of 23.3% and the model is improved. Please see Appendix 17.

Conclusion: Hypothesis 3b is accepted. There is sufficient evidence to support a conclusion that team trust moderates the relationship between team CQ and team creativity so that the relationship is more positive in GVTs characterized by higher team trust.

Model 3c- Hypothesis 3c: Transformational leadership moderates the relationship between team CQ and team creativity so that the relationship is more positive in GVTs characterized by stronger transformational leadership.

	R2-chng	F	df1	df2	p
X*W	.0003	.0776	1.0000	173.0000	.7810

The result shows that this interaction effect is not significant because $\text{sig} > .05$. It means that the relationship between team CQ and team creativity does not differ for the degree of transformational leadership. Transformational leadership does not moderate this relationship. Please see Appendix 18.

Conclusion: Hypothesis 3c is not accepted. There is sufficient evidence to support a conclusion that transformational leadership does not moderate the relationship between team CQ and team creativity so that the relationship is not more positive in GVTs characterized by stronger transformational leadership.

4.2.6. Independent t-test

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
Mean Creativity	Equal variances assumed	.007	.933	-.785	168	.434	-.11867	.15116	-.41708	.17975
	Equal variances not assumed			-.774	75.877	.441	-.11867	.15323	-.42387	.18653

There are two groups in our data, namely team members and team leaders. We use an independent t-test to compare if there is a difference between two means. Sig Levene's test is >0.05 , so we have equal variances assumed between two groups. There is no significant difference between the means of these two groups because the observed p of 0.434 is greater than the criterion of 0.05. The opinions of people at different levels no matter if they are team leaders or team members are similar and consistent with each other.

4.2.7. Common language

Common language in GVTs

When being asked about a common language, 136/170 responses choosing English account for 76%. English is still an international language compared to other languages. Please see Appendix 21a.

	N=179	%
Does the company specify a common language to be used?		
Yes	128	71.5%
No	42	23.5%
If yes, what is the common language used and defined by the company?		
English	110	61.5%
German	4	2.2%
Dutch	2	1.1%

Dutch and German	4	2.2%
If no, what is the common language used in your team not defined by the company?		
English	26	14.5%
Dutch and German	7	3.9%
German	5	2.8%
Dutch	1	0.6%

Table 5. Common language used in GVTs

When to use common language

English is prevailing in office life with more than 70% using in most situations. Please see Appendix 21b.

	N=179	%
When do you use this common language?		
Reports, minutes, memos	155	91.2%
Emails	163	95.9%
Presentations, discussions	155	91.2%
Meetings, conferences, workshops, trainings	163	95.9%
Phone-calls	148	87.1%
Company legal documents and forms	126	74.1%
Appraisal interviews	121	71.2%
Informal talk, socializing with colleagues outside work	130	76.5%
Other situations	11	6.5%

How often do you use another language, not the common language or lingua franca (English) in conversations with your colleagues?

Never	38	21.2%
Seldom	63	35.2%
About half the time	40	22.3%
Usually	17	9.5%
Always	12	6.7%

Table 6. Situations and frequency of using the common language

The importance of common language

There are 141 respondents (78.8%) who agree that common language plays an important role in their work. Please see Appendix 21c.

	N=179	%
Importance of common language in your work		
Very Unimportant	15	8.4%
Unimportant	5	2.8%
Neither unimportant nor important	9	5%
Important	51	28.5%
Very important	90	50.3%

Table 7. The importance of common language in work

The importance of language training course

There are 114 respondents (63.7%) who agree that with the importance of a language training course. Please see Appendix 21d.

	N=179	%
Importance of language training course		
Very Unimportant	13	7.3%
Unimportant	9	5%
Neither unimportant nor important	34	19%
Important	66	36.9%
Very important	48	26.8%

Table 8. The importance of language training course

Formal guidelines and working language for the whole company

In total, 43.6% disagree and strongly disagree with the opinion that having formal guidelines on a common language restricts employees' language use. This can be inferred that GVTs are not only open to language usage issues but also its possible guidelines to be developed to provide further information for the employees on this aspect from the company perspective. This expectation is consistent and connected to the next question when being asked if they think a formal working language for the whole company is necessary and desirable. 58.1% expressed their agreement and strong agreement. Please see Appendix 21e.

	N=179	%
Having formal guidelines on a common language restricts employees' language use		
Strongly agree	6	3.4
Agree	35	19.6
Undecided	51	28.5
Disagree	58	32.4

Strongly disagree	20	11.2
A formal working language for the whole company		
Strongly agree	42	23.5
Agree	62	34.6
Undecided	31	17.3
Disagree	22	12.3
Strongly disagree	13	7.3

Table 9. Formal guidelines and working language for the whole company

Additional languages GVTs want to improve their proficiency to support their work

More than 50% want to improve their English and it makes sense. As they are working in GVTs, English is a tool for their communication with international colleagues. It is possible that if they can improve their English, they have a sharper communication tool to seize more opportunities and gain more confidence in these conversations. Please see Appendix 21f.

	N=179	%
Additional language that GVTs want to improve their proficiency to support their work		
English	96	38.1%
Dutch	32	12.7%
German	43	17.1%
French	35	13.9%
Spanish	23	9.1%
Other languages	23	9.1%

Table 10. Additional languages GVTs want to improve proficiency

4.2.8. Overall results

After our analyses, we include the results into our conceptual framework as below.

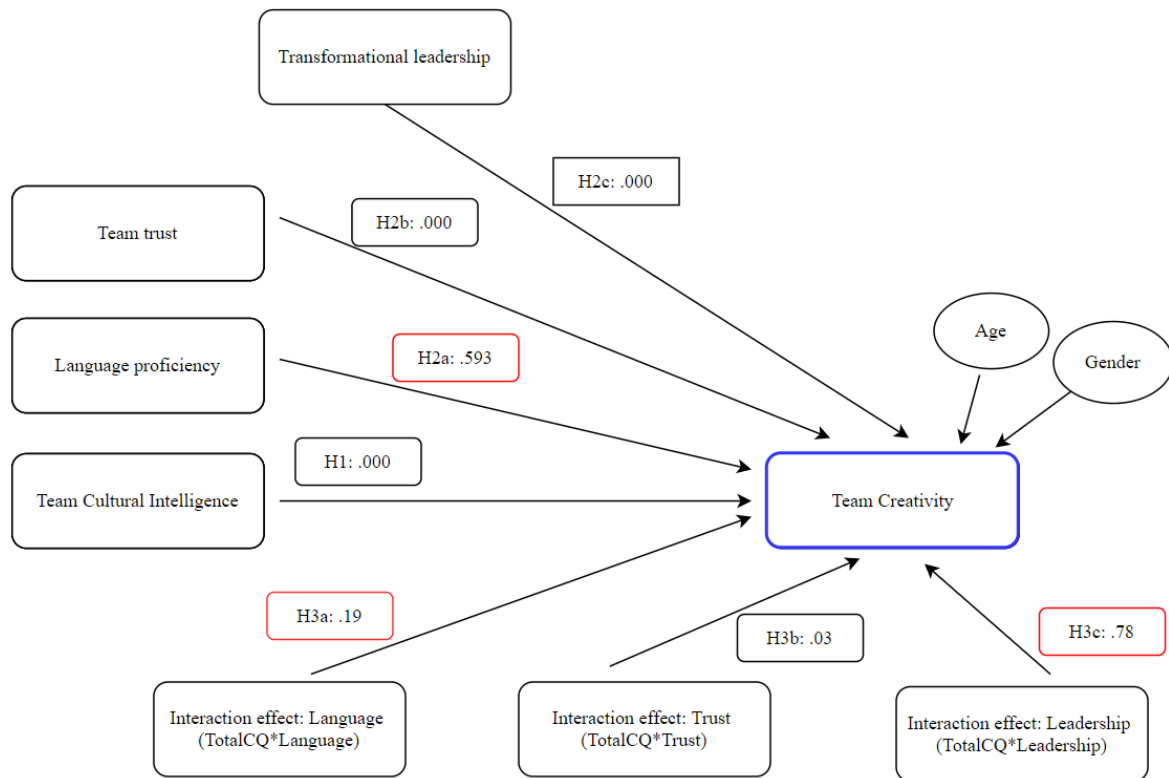


Figure 3. The conceptual model after analyses

5. DISCUSSION

This research objective is to fill essential literature gaps of team CQ on team creativity under the moderating effect of language proficiency, team trust and transformational leadership. For this purpose, quantitative research including an online survey was conducted. Based on our analyses, it is concluded that team CQ, team trust and transformational leadership positively affect team creativity while language proficiency does not. Besides team trust positively moderates the relationship between team CQ and team creativity. Team trust is the only moderator in this study which is significant while transformational leadership and language proficiency are not. Therefore, four out of seven hypotheses are accepted (see Appendix 22). From this research, there are some following findings which can be food for thought.

Firstly, team CQ is positively engaged with team creativity in GVTs. There are a lot of studies which indicate that cultural intelligence can enhance creativity (Gibson & Gibbs, 2006; Hu et al., 2019; Kratzer et al. 2006). However, very limited research investigated this relationship at team level until the research of Bückner and Korzilius (2020). This finding reconfirms the finding of Bückner and Korzilius (2020) on the positive effect of team CQ on team creativity. What makes this research differ from other research is its finding at team level and its research subjects are GVTs instead of university students like other research (Li et al., 2017; Bückner &

Korzilius, 2020). This research does not only contribute to the literature about the role of CQ and creativity in cultural diverse teams (Chua & Ng, 2017; Nouri et al., 2013) but also it fills in this gap of previous studies by using GVTs as the research subjects.

Secondly, language proficiency is not positively engaged with team creativity in GVTs. There is no correlation between language proficiency and team creativity. This result does not support the assumption that the level of language proficiency can affect the level of team creativity. We can interpret this result with the following reasons. First, it is effective communication fosters creativity (Dahlin et al., 2005; Hülshager et al., 2009). Therefore, we can infer that it is effective communication which is one of the success factors in creating creativity. Language is a means for communication or a means to communicate creative ideas. In this research, team CQ is positively engaging team creativity and the construct of openness to language diversity belongs in team CQ. GVTs are keen on learning from members and make an extra effort to listen to people speaking different languages, so it is their openness to language diversity which can help them win over language barriers to ensure effective communication. In a survey-based study of multicultural academic teams of Luring et. al (2015), it is also demonstrated that when the teams are open to language diversity, they are more creative and have better performance. Therefore, it explains why language proficiency does not matter much in reinforcing team creativity if the teams are willing to try to communicate effectively with each other. Second, it is also true in life that if our language proficiency is not good, we can use other tools (non-verbal communication, digital devices and so on) to support our communication. GVTs with their good language proficiency may not expose much to the threat of communication problems, so there should be other factors which can impact on their team creativity but not language proficiency.

Thirdly, language proficiency in this research is surveyed in corporate contexts and answered by the respondents from different countries. This is a positive and new point because the study solves the limitations that Carolin and Cardon (2020) and Presbitero (2020) recommend for researchers when developing studies on GVTs' communication challenges. In addition, we cannot test the effect from team creativity and language proficiency to see if that effect is there. Hence this finding opens a start for future research.

The next finding is team trust positively engages team creativity and is a moderator with its positive interaction effect on the relationship between team CQ and team creativity. This research aligns with the literature when seeing trust as an important factor to positively affect team creativity (Boies et al., 2015; Jo et al., 2015; Wu et al., 2016). As Baldé et al. (2018) propose future research should investigate it with bigger team sizes and in other types of team

like virtual teams. The new point of this research is it examines team trust in GVTs and tests its moderating effect in the relationship of team CQ and team creativity. The finding is meaningful when it helps to bridge the gaps in existing research on team trust.

Next, transformational leadership is engaging with team creativity. However, it will impose no impact or have no statistical power if its role is changed to be a moderator of the relationship between team CQ and team creativity. The literature notes that transformational leadership will initiate creativity (Cerne et al., 2013; Jyoti & Dev, 2015; Nusair et al., 2012; Shin & Zhou, 2003; Sosik et al., 1997; Wang & Rode, 2010; Wang et al., 2013) and our finding add a new insight that relationship continues positive to GVTs and in the context of working virtually.

Another finding is related to Team CQ scale. Team CQ scale with its repeated phrases in some items can cause confusion for the respondents. We also received this feedback from our respondents. Additionally, item 4 and 8 should be considered to put them into the construct of cultural metacognition instead of meaningful participation as they both are related to cultural metacognition. The items of team CQ after EFA do not load on expected construct happens not only in this research but also in the research of Bückner and Adam (2021). Therefore, other researchers may note this point and test this scale again in other studies.

One more point is age and gender are not control variables. The analysis result shows that there is no significant effect on team creativity. Likewise, Bückner and Adam (2021) share the same finding with their research which is also about the topic of team CQ and innovation. Further research should take into account this point to choose more appropriate control variables which are helpful to control the dependent variable.

Finally, another finding from this research is the consistent viewpoints of team leaders and team members. There are two groups of respondents in the data, namely team leaders or higher team leader level and team members. These respondents are working in different departments, international companies and countries in Europe, Asia and North America. However, they share similar opinions and their answers are consistent. It can be inferred that their perspective on these issues is identical although they have different cultural values and own different job positions.

6. CONCLUSION

The aim of this research is to answer the following research question: *To what extent do language proficiency, team trust and transformational leadership moderate the relationship between team CQ and team creativity in GVTs?*

The analysis result concludes that only team trust positively moderates the relationship between team CQ and team creativity in GVTs while transformational leadership and language proficiency show no statistical impact. The research has achieved its goals with its hypotheses and contributed to the studies of a new construct - team CQ. In addition, further important scientific and managerial implications from these findings are presented in the following paragraphs.

6.1. Scientific Implications

Firstly, the research focused on GVTs that are generally described as culturally diverse, geographically dispersed, electronically-connected workgroups (Daim et al., 2017). Each GVT in this study consists of team members and leaders from the same company and they have been working together to finish organizational tasks. They are colleagues. In the labor market, there are also virtual project teams. These virtual project teams consist of team members from various organisations and they work on different projects with fixed deadlines to finish (Opdenakker & Cuypers, 2019). Both of these virtual teams similarly work from a distance and consist of members from different countries. However, they share some certain differences due to the nature of work, task complexity and type of employment. Further research could also examine the relationship of team CQ on team creativity in these virtual project teams to see if it remains significant as virtual project teams are becoming more popular.

Secondly, Opdenakker and Cuypers (2019) indicate strategic momentum as the perseverance of a virtual project team strategy to drive virtual project teams till they have reached their objectives with less intervention from the management. The employees are given more autonomy and management mechanisms are more on coordination instead of command and control (Opdenakker & Cuypers, 2019). We think that there are several opportunities for future research to examine if there is any relationship between team CQ and strategic momentum in GVTs.

Thirdly, team CQ is constituted by three constructs, namely openness to diversity, meaningful participation and cultural metacognition. It may be necessary to separately consider the relationship between team creativity and each CQ facet. We would suggest additional research to continue unpacking the team CQ and its sub-concepts to explore its predictive power on creativity.

Furthermore, our study contributes to recent calls for more research on CQ at the team level besides individual level. In other words, our study contributes to the CQ literature when extending the analysis from individual analysis to team level analysis. However, the construct of team CQ is not yet fully explored. We suggest future research to further investigate team CQ

in other relationships such as team engagement, team trust, organizational citizenship behavior and so on besides team creativity to develop a wider understanding of team CQ and its predictors on team level analysis.

In addition, if we have high team CQ levels in the organizations, may it lead to organizational CQ? This is a question which is not covered in our scope of study. Ning-yu et al., (2013) mention that CQ at individual, team and organizational levels plays critical roles if companies would like to be effective in their globalization. The multilevel cultural adaptation from individual, team and organizational cultural intelligence may be interrelated and needed in combination to have stronger effect on the organization outcomes. Therefore, we encourage future researchers to continue with more studies in this untapping direction to gain more insights and reap more implications in terms of scientific and practical relevance.

In our research, team creativity is defined as innovative solutions that the team can develop or useful ideas to achieve the team's goals (Bücker & Korzilius, 2020). Team creativity can be defined as the outcome of the integration of systematic knowledge which is produced from the interaction between team members (Wan et al., 2019). With different definitions of team creativity, the respondents may have different responses. Thus, future research is encouraged to continue examining definitions for team creativity or could examine if the definition of Bücker and Korzilius (2020) which we investigated in this study is still valid in this VUCA (volatility, uncertainty, complexity, and ambiguity) world to confirm the research reliability.

The language proficiency scale has a very high Cronbach's Alpha (0.952). With too high scales, there can be a possibility that some items are redundant because they are testing the same question but without statistical power. A maximum Cronbach's Alpha value of 0.90 has been recommended (Streiner, 2003). Future study can test this scale again to see if Cronbach's Alpha is changed with other subjects of research to ensure its reliability.

Last but not least, researchers should consider a wide variety of research models beyond cross-sectional models. Longitudinal designs or a combination of longitudinal and cross-sectional designs can be helpful to examine research validity and reliability. Therefore, future research can test these findings again with the mentioned-above designs to have a deeper understanding of the predictors of team creativity. Creative ideas are key drivers to any organizations because these initiatives can be translated into innovation, productivity and business performance.

6.2. Practical Implications

This research has come out with some findings which should be taken into the consideration of international companies where most of GVTs are working for.

In order to have creative GVTs, the key elements will be the existence of team CQ and team trust in these GVTs. The question is how to improve team CQ and team trust in these GVTs, especially from a distance. Regarding team trust, we may have many forms to cultivate a culture of trust and the role of the leaders as connectors is very important (Settle-Murphy, 2012). To foster a trusting culture, people need to feel safe when voicing their ideas and it is the responsibility of both the management and the leaders who facilitate and create such an inclusive environment. Settle-Murphy (2012) suggests some ways to build trust across the boundaries: encourage creativity and accept reasonable risk taking, give all team members equal opportunities to contribute ideas or comments, share power, stimulate knowledge transfer among team members, respect cultural and generational differences and value all contributions equally. In order to improve team CQ, it is necessary to increase the awareness of all employees of the culture's role in interactions and accept people's differences. Training courses on cultural intelligence can be useful to develop CQ mindedness and people who are working in GVTs should together develop team CQ.

As long as team creativity is the outcome that all organizations want to boost, how to stimulate team creativity in GVTs deserves much consideration. There will be three elements to construct team creativity which the organizations should take into account. The first element of team creativity is "individual attributes" (Ocker, 2007). In the research of Ocker (2007), these personality dimensions, namely openness, assertiveness and anxiety significantly predict team creativity. The companies need to ensure that these individual attributes are possessed by their employees because they are one of constituent elements of team creativity. Personality tests such as Myers-Briggs Type Indicator (MBTI), DISC Assessment, The Enneagram, and StrengthsFinder can help in the pre-employment personality assessment to identify candidates who are imaginative and original thinkers. The second element is team composition. Team creativity is created by the individual creativity in the team and also by the team composition - that is, the arrangement of stimulating members into heterogeneous teams (Parmeter & Gaber, 1971). Diversity of specialization and work responsibilities is productive to boost team creativity. Therefore, to achieve the goals of team composition, there should be a close collaboration and good understanding between Global and Local HR and stakeholders to make sure all of the arrangements is a fit to all. The last element is the team interaction. Specifically, high creative teams are proven to significantly engage in more critical debates than low creative teams do (Ocker, 2007). Thus, critical debates are welcome to collect more ideas and find out the best solutions providing that constructive comments are contributed and offered.

The research finds that transformational leadership will affect team creativity. However, its explanatory power to team creativity is small at 12.9%. It is inferred that there will be other leadership styles which can predict team creativity and better fit GVTs. GVTs are working in a special working setting and often in charge of important tasks in the organizations. Studies in literature prove that either shared leadership, transformational leadership or inclusive leadership can benefit creativity (Gu et al., 2020; Mohamed, 2016; Randel et al., 2018; To et al., 2015). Leadership style can vary in a turbulent environment and more importantly, it should fit the team. Together with the growing prevalence of cultural diversity and GVTs, leader CQ has emerged in culturally diverse business environments (Ang et al., 2007; Roberson & Park, 2007). CQ is suggested to become a critical leadership competency (Groves & Feyerherm, 2011). High CQ leaders can have a deeper understanding of their teammates' heterogeneous cultural backgrounds. Thanks to their strong CQ competency, CQ leadership can share perspectives of their teams and ultimately establish stronger relationships with culturally diverse team members. Such sensitivity and receptivity is an advantage to facilitate high CQ leaders to mitigate the intra-team conflicts and ultimate failures (Hambrick et al., 2001; Kim et al., 2008; Pothukuchi et al., 2002). Furthermore, high CQ leaders can better understand their team members' leadership expectations, so they can formulate collective team goals and team work processes that ensure strong support given to team members. With all of the above advantages, CQ leadership should be promoted because it is likely that it can fit better with GVTs. It is really the right time to upskill and reskill our workforce and CQ leadership should not be missing from the training syllabus in international organizations.

Finally, more than 67% of the respondents agreed with the importance of a language training course and 50% wanted to improve their English. Based on these findings, we propose that multicultural organizations should consider creating an English speaking environment to support consistent daily English language use among GVTs. Online language training courses can be an option and help individuals be more confident to engage in cross-national interaction. With regard to English management communication, the top management could lead by example and ensure the middle managers' awareness of the effects of speaking a common language rather than using their mother language and support the popularity of a common language (Lauring & Selmer, 2012). The above language management interventions could be integrated as parts of a corporate language policy that should explicitly provide reasons behind them and introduce preferred practices for mutual understanding and support of all employees.

6.3. Limitations

This study has several limitations. Firstly, multiple regression and factor analysis have one common limitation. These techniques can examine only a single relationship between the dependent and the independent variables at a time (Hair et al., 2019). For example, only one direction from team CQ to team creativity is examined but not the opposite direction. It is better to use SEM, an extension of several multivariate techniques including factor analysis and multiple regression analysis, to test a series of dependence relationships simultaneously of this model more precisely. However due to the small sample size (less than 200), we did not conduct SEM. Therefore, with the findings of this research, we should be aware that they are tested on a single relationship. What we are seeing can be one side of the coin.

Secondly, although a cross-sectional study design allows people to compare many different variables at the same time, it is impossible to provide definite information about cause-and-effect relationships. Cross-sectional studies offer a snapshot of a single moment – the relationship between team CQ and team creativity at a certain point of time but they cannot consider changes before or after the snapshot is taken. Therefore, a longitudinal study can better estimate cause-and-effect relationships than a cross-sectional study. As mentioned in “methodology”, cross-sectional studies can be done faster than longitudinal studies, so we expect that in this cross-sectional study if there are links between these certain variables, future research can set up a longitudinal design to further study cause and effect of these relationships. Thirdly, social desirability biases are unavoidable in data collection. This social bias prevents people from giving honest answers to survey questions, leading to skewed results (King & Bruner, 2000). The participants can present themselves in the most favorable manner of what is socially accepted. A Harman single factor test is employed and it is concluded that there is no common bias in this study. However, a Harman’s single factor can test CMB but not control it.

The number of participants is another issue. We may have a bigger sample size to conduct SEM if the survey is shorter and we come out with a corporate identity more than a personal identity when approaching these international companies. We got feedback from respondents that the survey is too long (taking 20 to 25 minutes to finish) and some could not finish it. Or some companies after reading the survey did not confirm to participate. Some team leaders agreed to help us with the survey; however, when they approached their HR Department, they could not help us due to the confidentiality policies in their companies. As we all know these international companies are very prudent and strict with their data security, that we use Qualtrics to collect information and put data in anonymity for research purposes only is not a very helpful reason

to convince these companies to participate in this research. We share this point so that the researchers in the future should prepare well for the data plan and reasons to better attract international companies to join in this research because how to boost the creativity of GVTs is an important issue.

The combination of quantitative research with qualitative research is meaningful to have an overall view on the same issue. We can agree that it is very difficult to measure attitude and opinion in numerical form, so it poses a threat to transform an individual's subjectivity into an objective reality (Joshi et. al, 2015). In qualitative research, we can explore people's subjective feelings through follow-up ideas and probes. We give the participants the opportunities to voice their opinions and dive deep into exploring why they have such thoughts and feelings which may affect their behavior and responses (Austin & Sutton, 2014). Therefore, this limitation of this research is aware but seen as a plus. Based on meaningful finding, other researchers can continue this topic with qualitative research to dive deep into the construct of team CQ and team creativity.

Last but not least, we use team creativity as a dependent variable and measure team creativity based on the rating of members and leaders in GVTs. Future studies may need to use objective measures in order to test it again with another level. Therefore, more research is encouraged to understand this construct and collect more implications for practice.

In conclusion, this research reflects team CQ, language proficiency, team trust, transformational leadership in the relationship with team creativity. Although we cannot address all issues in this research due to some certain limitations, we hope to bring interesting information for the consideration of the top management and HR practitioners. Also, we call for more research on the topic of team CQ at team level analysis to better understand this construct because of its important implications for the development of international HR management and DnI policies.

REFERENCES

- Adadan, E., & Savasci, F. (2011). An analysis of 16-17-year-old students' understanding of solution chemistry concepts using a two-tier diagnostic instrument. *International Journal of Science Education*, 34(4), 513–544. doi:10.1080/09500693.2011.636084.
- Adair, W. L., Hideg, I., & Spence, J. R. (2013). The culturally intelligent team: The impact of team cultural intelligence and cultural heterogeneity on team shared values. *Journal of Cross-Cultural Psychology*, 44(6), 941-962.

- Adler, N. J. (1997). *International dimensions of organizational behavior*. Cincinnati, OH: South- Western College.
- Alwis, R.S., & Hartmann, E. (2008). The use of tacit knowledge within innovative companies: knowledge management in innovative enterprises. *J. Knowl. Manag.*, 12, 133-147.
- Ang, S., Van Dyne, L., Koh, C., Ng, K. Y., Templar, K. J., Tay, C., & Chandrasekar, N. A. (2007). Cultural intelligence: Its measurement and effects on cultural judgement and decision making, cultural adaptation and task performance. *Management and Organization Review*, 3(3), 335-371.
- Amabile, T. M., Barsade, S. G., Mueller, J. S., & Staw, B. M. (2005). Affect and creativity at work. *Administrative Science Quarterly*, 50(3), 367-403.
- Amir, Y. (1969). Contact hypothesis in ethnic relations. *Psychological Bulletin*, 71(5), 319-342.
- Andriopoulos, C. (2001). Determinants of organisational creativity: a literature review. *Management Decision*, 39(10), 834-841.
- Armbruster, B. B. (1989). Metacognition in creativity. In J. A. Glover, R. R. Ronning & C. R. Reynolds (Eds.), *Handbook of creativity* pp. (177–182). New York, NY: Plenum.
- Ashmi, J., & Kumar, A. (2016). “Trust: A ‘Must’ for Virtual Team Effectiveness” A Literature Review on the Role of Trust in Virtual Team Effectiveness. *NavaJyoti, International Journal of Multi-Disciplinary Research*, 1(1), 1-9.
- Austin, Z., & Sutton, J. (2014). Qualitative research: getting started. *The Canadian journal of hospital pharmacy*, 67(6), 436–440. <https://doi.org/10.4212/cjhp.v67i6.1406>
- Avolio, B. (2011). *Full range leadership development* (2nd ed.). Thousand Oaks, CA: SAGE Publications. ISBN: 9781412974752.
- Avolio, B. J. & Bass, B. M. (2004). *Multifactor Leadership Questionnaire. Manual and sampler set*. (3rd ed.) Redwood City, CA: Mind Garden.
- Bagozzi, Richard P. (1984). A Prospectus for Theory Construction in Marketing. *Journal of Marketing*, 48(1), 11–29.
- Baldé, M., Ferreira, A., & Maynard, T. (2018). SECI driven creativity: the role of team trust and intrinsic motivation. *J. Knowl. Manag.*, 22(8), 1688-1711.
- Balthazard, P.A., Waldman, D., & Warren, J. (2009). Predictors of the emergence of transformational leadership in virtual decision teams. *Leadership Quarterly*, 20(5), 651-663.

- Barczak, G., Lassk, F., & Mulki, J. (2010). Antecedents of team creativity: An examination of team emotional intelligence, team trust and collaborative culture. *Creativity and Innovation Management*, 19(4), 332–345.
- Bargh, J.A., McKenna, K.Y.A & Fitzsimons, G. (2002). Can you see the real me? Activation and expression of the “true self” on the Internet. *Journal of Social Issues*, 58, 33-48.
- Barner-Rasmussen, W., & Björkman, I. (2007). Language Fluency, Socialization and Inter-Unit Relationships in Chinese and Finnish Subsidiaries. *Management and Organization Review*, 3(1), 105-128.
- Bass, B. M. & Avolio, B. J. (2000). *MLQ Multifactor Leadership Questionnaire*. Redwood City: Mind Garden.
- Bass, B. M. (1997). Does the transactional–transformational leadership paradigm transcend organizational and national boundaries? *American Psychologist*, 52(2), 130–139. <https://doi.org/10.1037/0003-066X.52.2.130>
- Bass, B. M., & Avolio, B. J. (Eds) (1994). *Improving organizational effectiveness through transformational leadership*. Thousand Oaks, CA: Sage.
- Bass, B. M. (1985). *Leadership and performance beyond expectations*. New York: Free Press.
- Baumgartner, H. & Steenkamp, J. E.M. (2001). Response Styles in Marketing Research: A Cross-National Investigation. *Journal of Marketing Research*, 38(2), 143–56.
- Beesley, L. G., & Cooper, C. (2008). Defining knowledge management (KM) activities: towards consensus. *Journal of Knowledge Management*, 12(3), 48-62.
- Bennis, W. G., & Nanus, B. (1985). *Leaders: The Strategies for taking Charge*. New York: Harper and Row.
- Bergiel, B.J., Bergiel, E.B., & Balsmeier, P.W. (2008). Nature of virtual teams: a summary of their advantages and disadvantages. *Management Research News*, 31(2), 99-110.
- Bidault, F. & Castello, A. (2009). Trust and creativity: understanding the role of trust in creativity-oriented joint developments. *R&D Management*, 39(3), 259-270.
- Biscaro, C., & Comacchio, A. (2018). Knowledge Creation Across Worldviews: How Metaphors Impact and Orient Group Creativity. *Organ. Sci.*, 29(1), 58-79.
- Boamah, S.A., Laschinger, H.K., Wong, C., & Clarke, S. (2018). Effect of transformational leadership on job satisfaction and patient safety outcomes. *Nursing outlook*, 66(2), 180-189.

- Boies, K., Fiset, J. , & Gill, H. (2015). Communication and trust are key: unlocking the relationship between leadership and team performance and creativity. *The Leadership Quarterly*, 26(6), 1080–1094.
- Borgatti, S.P. & Cross, R. (2003). A Relational View of Information Seeking and Learning in Social Networks. *Management Science*, 49, 432-445.
- Borghini S. (2005). Organizational creativity: breaking equilibrium and order to innovate. *J. Knowl. Manag.* 9, 19–33.
- Breevaart, K., & Bakker, A. (2018). Daily Job Demands and Employee Work Engagement: The Role of Daily Transformational Leadership Behavior. *Journal of Occupational Health Psychology*, 23(3), 338–349.
- Bücker, J. & Adam, S. (2021). Team Cultural Intelligence: An Investigation of the antecedents of Team Cultural Intelligence and its effects on the innovative work behaviour of teams. *Conference paper EURAM*.
- Bücker, J. & Korzilius, H. (2020). Groundbreaking teamwork. The pivotal role of team cultural intelligence for explaining creativity, innovative work behavior, and learning in global teams. (In publication).
- Bücker, J., Furrer, O., Poutsma, E., & Buyens, D. (2014). The impact of cultural intelligence on communication effectiveness, job satisfaction and anxiety for Chinese host country managers working for foreign multinationals. *The International Journal of Human Resource Management*, 25(14), 2068-2087.
- Burke, C. S., Sims, D. E., Lazzara, E. H., & Salas, E. (2007). Trust in leadership: A multi-level review and integration. *The Leadership Quarterly*, 18(6), 606–632.
- Caligiuri, P.M. (2000). Selecting expatriates for personality characteristics: A moderating effect of personality on the relationship between host national contact and cross-cultural adjustment. *Management International Review*, 40(1), 61-80.
- Caniëls, M.C., Semeijn, J., & Renders, I. (2018). Mind the mindset! The interaction of proactive personality, transformational leadership and growth mindset for engagement at work. *Career Development International*, 23(1), 48-66.
- Carolin, F., Aritz, J. & Cardon P. (2020). Language Proficiency and Media Richness in Global Virtual Teams: Impacts on Satisfaction, Inclusion, and Task Accomplishment. *ACM transactions on social computing*, 2(4), 1-18.
- Carte, T. A., Chidambaram, L., & Becker, A. (2006). Emergent leadership in self-managed virtual teams. *Group Decision and Negotiation*, 15(4), 323–343.

- Cerne, M., Jaklic, M. S., & Kerlavaj, M. (2013). Authentic leadership, creativity, and innovation: a multilevel perspective. *Leadership*, 9(1), 63-85.
- Chang, S.-J., Van Witteloostuijn, A. & Eden, L. (2010). Common method variance in international business research. *Journal of International Business Studies*, 41, 178-184, doi: 10.1057/jibs.2009.88.
- Chamakiotis, P., Dekoninck, E.A. and Panteli, N. (2010). *Creativity in Virtual Design Teams Design Conference*. Dubrovnik, Croatia.
- Chen, M.H., Chang, Y.C. & Hung, S.C. (2008). Social Capital and creativity in R&D project teams. *R&D Management*, 38(1), 21-34.
- Chua, R. Y., & Ng, K. Y. (2017). Not just how much you know: Interactional effect of cultural knowledge and metacognition on creativity in a global context. *Management and Organization Review*, 13(2), 281-300.
- Chung, Y., & Jackson, S.E. (2011). Co-worker trust and knowledge creation: A multilevel analysis. *Journal of Trust Research*, 1(1), 65 - 83.
- Colquitt, J. A., Scott, B. A., & LePine, J. A. (2007). Trust, trustworthiness, and trust propensity: A meta-analytic test of their unique relationships with risk taking and job performance. *Journal of Applied Psychology*, 92(4), 909–927.
- Connaughton, S. L., & Shuffler, M. (2007). Multinational and Multicultural Distributed Teams: A Review and Future Agenda. *Small Group Research*, 38(3), 387–412. doi: 10.1177/1046496407301970 .
- Crotty, S., & Brett, J. (2012). Fusing Creativity: Cultural Metacognition and Teamwork in Multicultural Teams. *Negotiation and Conflict Management Research*, 5(2), 210-234.
- Crisp, C., & Jarvenpaa, S. (2013). Swift trust in global virtual teams: Trusting beliefs and normative actions. *Journal of Personnel Psychology*, 12(1), 45-56.
- Dahlin, K., Weingart, L., & Hinds, P. (2005). Team diversity and information use. *Academy of Management Journal*, 48, 1107–1123.
- Daim, T., Ha, A., Reutiman, S., Hughes, B., Pathak, U., Bynum, W., & Bhatl, A. (2017). Exploring the communication breakdown in global virtual teams. *IEEE Engineering Management Review*, 45, 69-84.
- Davis, D.D. & Bryant, J.L. (2003), "Influence at a distance: Leadership in global virtual teams", *Advances in Global Leadership (Advances in Global Leadership, Vol. 3)*, Emerald Group Publishing Limited, Bingley, pp. 303-340. [https://doi.org/10.1016/S1535-1203\(02\)03015-0](https://doi.org/10.1016/S1535-1203(02)03015-0).

- Dess, G. G., and Picken, J. C. (2000). Changing roles: leadership in the 21st century. *Organ. Dyn.* 28, 18–34. doi: 10.1016/S0090-2616(00)88447-8.
- De Dreu, C. K. W., Nijstad, B. A., Bechtoldt, M. N., & Baas, M. (2011). Group creativity and innovation: A motivated information processing perspective. *Psychology of Aesthetics, Creativity, and the Arts*, 5(1), 81–89. <https://doi.org/10.1037/a0017986>.
- De Jong, B. A., & Elfring, T. (2010). How does trust affect the performance of ongoing teams? The mediating role of reflexivity, monitoring and effort. *Academy of Management Journal*, 53, 535-549.
- DiLiello T. C., Houghton J. D. (2006). Maximizing organizational leadership for the future: toward a model of self-leadership, innovation and creativity. *J. Manag. Psychol.* 21, 319–337.
- Dirks, K. T., & Ferrin, D. L. (2002). Trust in leadership: Meta-analytic findings and implications for research and practice. *Journal of Applied Psychology*, 87(4), 611–628.
- Dvir, T., Eden, D., Avolio, B. J., & Shamir, B. (2002). Impact of transformational leadership on follower development and performance: a field experiment. *Academy of Management Journal*, 45(4), 735-744.
- Earley, P., Ang, S., & Tan, J-S. (2006). *CQ: Developing cultural intelligence at work*. Stanford, CA: Stanford University Press.
- Earley, P. C., & Peterson, R. S. (2004). The elusive cultural chameleon: Cultural intelligence as a new approach to intercultural training for the global manager. *Academy of Management and Learning*, 3(1), 100–115.
- Earley, P. C., & Ang, S. (2003). *Cultural intelligence: Individual interactions across cultures*. Stanford, CA: Stanford University Press.
- Ella, G. & Miriam, E. (2020). The emergence of a communication climate in global virtual teams. *Journal of World Business, Elsevier*, 55(6).
- Ely, R.J. & Thomas, D.A. (2001). Cultural diversity at work: The effects of diversity perspectives on work group processes and outcomes. *Administrative Science Quarterly*, 46(2), 229-273.
- Erdem, F. (2003). Optimal trust and teamwork: from groupthink to teamthink. *Work Study*, 52(5), 229-233.
- Eveland, J. & Bikson, T. (1988). Work Group Structures and Computer Support: A Field Experiment. *ACM Transactions on Office Information Systems*, 6(4), 354-379.

- Feldhusen, J. F., & Goh, B. E. (1995). Assessing and accessing creativity: An integrative review of theory, research, and development. *Creativity Research Journal*, 8(3), 231–247. https://doi.org/10.1207/s15326934crj0803_3
- Field, Andy. (2017) *Discovering statistics using IBM SPSS statistics*, 5th edition. SAGE Publications, London.
- Gaspersz, J. (2005). Compete with creativity. Essay presented at the innovation lecture ‘compete with creativity’ of the Dutch Ministry of Economic Affairs. Available at: <http://www.rijksoverheid.nl/ministeries/eleni/organisatie/evenementen/innovation-lecture>; https://www.jeffgaspersz.nl/dl-23740-1-21406/download/compete_with_creativity_-_2005.pdf
- Gassmann, O., & Von Zedtwitz, M. (2003). Trends and determinants of managing virtual R&D teams. *R&D Management*, 33(3), 243–262.
- Gladstein, D. L. (1984). Groups in context: A model of task group effectiveness. *Administrative Science Quarterly*, 29, 499–517.
- Gibson, C. B. & Gibbs, J. L. (2006). Unpacking the concept of virtuality: The effects of geographic dispersion, electronic, dynamic structure, and national diversity on team innovation. *Administrative Science Quarterly*, 51(3), 451-495.
- Gibson, C. B., & Cohen, S. G. (2003). Virtual teams that work. *Creating Conditions for Virtual Team Effectiveness*. San Francisco: Jossey-Bass.
- Giles, H., Bourhis, R. Y. & Taylor, D. M. (1977). “Towards a theory of language in ethnic group relations.”. In *Language, Ethnicity and Intergroup Relations*., Edited by: Giles, H. London & New York: Academic Press.
- Gong, Y., Huang, J. C., & Farh, J. L. (2009). Employee learning orientation, transformational leadership, and employee creativity: The mediating role of employee creative self-efficacy. *Academic Management Journal*, 52(4), 765-778.
- Groves, K. S., & Feyerherm, A. E. (2011). Leader Cultural Intelligence in Context: Testing the Moderating Effects of Team Cultural Diversity on Leader and Team Performance. *Group & Organization Management*, 36(5), 535–566.
- Gu, Q., Liang, B., & Cooke, F. (2020). How does shared leadership affect creativity in teams? A multilevel motivational investigation in the Chinese context. *International Journal of Human Resource Management*, 1-29.
- Gumusluoglu, L., & Ilsev, A. (2009). Transformational leadership, creativity, and organizational innovation. *Journal of Business Research*, 62(4), 461-473.

- Hackman, J. R., & Walton, R. E. (1986). Leading groups in organizations. In P. S. Goodman (Ed.), *Designing effective work groups*. San Francisco: Jossey-Bass.
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2019). *Multivariate data analysis*. Andover: Cengage Learning.
- Han, J., & Brass, D. (2014). Human capital diversity in the creation of social capital for team creativity. *Journal of Organizational Behavior*, 35, 54-71.
- Han, G. & Harms, P.D. (2010). Team identification, trust and conflict: a mediation model. *International Journal of Conflict Management*, 21(1), 20-43.
- Hambrick, D., Li, J., Xin, K., Tsui, A. (2001). Compositional gaps and downward spirals in international JV management groups. *Strategic Management Journal*, 22, 1033-1053.
- Harrison, D. A. & Klein, K. J. (2007). What's the difference? diversity constructs as separation, variety, or disparity in organizations. *Academy of Management Review*, 32(4), 1199–1228.
- Harrison, D. A., Price, K. H., & Bell, M. P. (1998). Beyond relational demography: Time and the effects of surface- and deep-level diversity on work group cohesion. *Academy of Management Journal*, 41(1), 96–107. <https://doi.org/10.2307/256901>.
- Helen, A.H, Yamashita, N, Wacharamanotham, C., Horn, A. B., Schmid, J., Huang, E. M. (2017). Two Sides to Every Story: Mitigating Intercultural Conflict Through Automated Feedback and Shared Self-Reflections in Global Virtual Teams. *PACM Human-Computer Interaction*, 1(2), 21. DOI: <https://doi.org/10.1145/3134686>.
- Hennessey, B. A., and Amabile, T. M. (2010). Creativity. *Annu. Rev. Psychol.* 61, 569–598. doi: 10.1146/annurev.psych.093008.100416.
- Hoch, J. E., & Kozlowski, S. W. (2014). Leading virtual teams: Hierarchical leadership, structural supports, and shared team leadership. *Journal of Applied Psychology*, 99(3), 390.
- Hoever, I. J., van Knippenberg, D., van Ginkel, W. P., & Barkema, H. G. (2012). Fostering team creativity: perspective taking as key to unlocking diversity's potential. *J. Appl. Psychol.* 97(5), 982–996. doi: 10.1037/a0029159.
- Hofstede, G. (1980). *Cultural consequences: International differences in work-related values*. Beverly Hills, CA: Sage.
- Homan, A. C., van Knippenberg, D., Van Kleef, G. A., & De Dreu, C. K. W. (2007). Bridging faultlines by valuing diversity: The effects of diversity beliefs on information elaboration and performance in diverse work groups. *Journal of Applied Psychology*, 92(5), 1189-1199. <https://doi.org/10.1037/0021-9010.92.5.1189>.

- Hon, A. H. (2012). When competency-based pay relates to creative performance: the moderating role of employee psychological need. *International Journal of Hospitality Management*, 31(1), 130-138.
- Hu, N., Wu, J., & Gu, J. (2019). Cultural intelligence and employees' creative performance: The moderating role of team conflict in interorganizational teams. *Journal of Management & Organization*, 25(1), 96-116. doi:10.1017/jmo.2016.64.
- Hu, M.L.M., Ou, T.L., Chiou, H.J. & Lin, L.C. (2012). Effects of social exchange and trust on knowledge sharings and service innovation. *Social Behavior and Personality: An International Journal*, 40(5), 783-800.
- Iacono, C. S. & Weisband, S. (1997). "Developing trust in virtual teams," Proceedings of the Thirtieth Hawaii International Conference on System Sciences, Wailea, HI, USA, pp. 412-420 vol.2, doi: 10.1109/HICSS.1997.665615.
- Jamieson, S. (2004). *Likert scales: How to (ab)use them*. Medical Education, 38, 1212 -1218. doi: 10.1111/j.1365-2929.2004.02012.x
- Jarvenpaa, S. L., Shaw, T. R., & Staples, D. S. (2004). Toward contextualized theories of trust: The role of trust in global virtual teams. *Information systems research*, 15(3), 250 -267.
- Jarvenpaa, S. & Leidner, D. (1999). Communication and Trust in Global Virtual Teams. *Organization Science*, 10(6), 791- 815.
- Jarvenpaa, S-L, Knoll, K. & Leidner, D.E. (1998). Is anybody out there? Antecedents of trust in global virtual teams. *Journal of Management Information Systems*, 14(4), 29-64.
- Jarvenpaa, S. & Leidner, D. (1999). Communication and Trust in Global Virtual Teams. *Organization Science*, 10(6), 791- 815.
- Jarvenpaa, S. L., & Leidner, D. E. (1998). Communication and trust in global virtual teams. *Organization Science*, 10(6), 791–815. <https://doi.org/10.1287/orsc.10.6.791>.
- Jo, N. Y., Lee, K. C., Lee, D. S. & Hahn, M. (2015). Empirical analysis of roles of perceived leadership styles and trust on team members' creativity: evidence from Korean ICT companies, *Computers in Human Behavior*, 42, 149–156.
- Joshi, A., Kale, S., Chandel, S., & Pal, D. (2015). Likert Scale: Explored and Explained. *British Journal of Applied Science and Technology*, 7, 396-403.
- Jonsen, K., Maznevski, M., & Schneider, S. C. (2011). Diversity and its not so diverse literature: An international perspective. *International Journal of Cross-Cultural Management*, 11(1), 35-62.
- Judge, T. A. & Piccolo, R. F. (2004). Transformational and transactional leadership: A meta-analytic test of their relative validity. *Journal of Applied Psychology*, 89,755-768.

- Jyoti, J. & Dev, M. (2015). The impact of transformational leadership on employee creativity: the role of learning orientation. *Journal of Asia Business Studies*, 9(1), 78-98.
- Kankanhalli, A., Tan, B. C., & Wei, K. K. (2006). Conflict and performance in global virtual teams. *Journal of Management Information Systems*, 23(3), 237–274.
- Kayworth, T. & Leidner, D. (2000). The Global Virtual Manager: A Prescription for Success. *European Management Journal*, 18(2), 183-194.
- Khvatova, T., Block, M., Zhukov, D. & Lesko, S. (2016). How to measure trust: the percolation model applied to intra-organisational knowledge sharing networks. *Journal of Knowledge Management*, 20(5), 918-935.
- King, M., & Bruner, G.C. (2000). Social desirability bias: A neglected aspect of validity testing. *Psychology & Marketing*, 17, 79-103.
- Kim, K., Kirkman, B., Chen, G. (2008). Cultural intelligence and international assignment effectiveness: A conceptual model and preliminary findings. In Ang, S., Van Dyne, L. (Eds.), *Handbook of cultural intelligence: Theory measurement, and applications* (pp. 71-90). Armonk, NY: M. E. Sharpe.
- Klijn, M., & Tomic, W. (2010). A review of creativity within organizations from a psychological perspective. *Journal of Management Development*, 29(4), 322-343.
- Klitmøller, A., Luring, J. (2013). When global virtual teams share knowledge: media richness, cultural difference and language commonality. *J. World Bus.* 48(3), 398–406.
- Klimoski, R. J., & Karol, B. L. (1976). The impact of trust on creative problem solving groups. *Journal of Applied Psychology*, 61(5), 630–633. <https://doi.org/10.1037/0021-9010.61.5.630>.
- Konradt, U., & Hertel, G. (2002). *Management Virtueller teams; von der Telearbeit zum virtuellen Unternehmen*. Weinheim/Basel: Beltz Verlag. (In German).
- Kottila, M., & Rönni, P. (2008). Collaboration and trust in two organic food chains. *British Food Journal*, 110, 376-394.
- Kouzes, J. M., & Posner, B. Z. (1987). *The Jossey-Bass management series. The leadership challenge: How to get extraordinary things done in organizations*. Jossey-Bass.
- Kozlowski, S., & Bell, B. (2008). *Team Learning, Development, and Adaptation. Work Group Learning: Understanding, Improving and Assessing How Groups Learn in Organizations*. New York, NY: Taylor & Francis Group, 15–44.
- Kratzer, J., Leenders, R. T. A., & Van Engelen, J. M. (2006). Team polarity and creative performance in innovation teams. *Creativity and Innovation Management*, 15(1), 96-104.
- Krosnick, J. A. (1999). Survey Research. *Annual Review of Psychology*, 50, 537–67.

- Krosnick, J. A. & Duane F. A. (1987). An Evaluation of a Cognitive Theory of Response-Order Effects in Survey Measurement. *Public Opinion Quarterly*, 51(2), 201–19.
- Lauring, J., Paunova, M., & Butler, C. L. (2015). Openness to Language and Value Diversity Fosters Multicultural Team Creativity and Performance. *Paper presented at The Academy of Management Annual Meeting 2015*, Vancouver, Canada.
- Lauring, J., & Selmer, J. (2012). International language management and diversity climate in multicultural organizations. *International Business Review*, 21(2), 156-166.
- Lauring J. (2008). Rethinking Social Identity Theory in International Encounters: Language Use as a Negotiated Object for Identity Making. *International Journal of Cross Cultural Management*, 8(3), 343-361. doi:10.1177/1470595808096673.
- Lee, P., Gillespie, N., Mann, L., & Wearing, A. (2010). Leadership and trust: Their effect on knowledge sharing and team performance. *Management Learning*, 41(4), 473–491.
- Leung, K., & Wang, J. (2015). Social processes and team creativity in multicultural teams: a socio-technical framework. *J. Organ. Behav.* 36, 1008–1025. doi: 10.1002/job.2021.
- Levin, D.Z., & Cross, R. (2004). The Strength of Weak Ties You Can Trust: The Mediating Role of Trust in Effective Knowledge Transfer. *Manag. Sci.*, 50(11), 1477-1490.
- Li, W. (2005). “How can you tell?” Towards a common sense explanation of conversational code-switching. *Journal of Pragmatics*, 37(3), 375-389.
- Li, Y., Rau, P. P., Li, H. & Maedche, A. (2017). Effects of a Dyad's Cultural Intelligence on Global Virtual Collaboration. *IEEE Transactions on Professional Communication*, 60(1), 56-75, doi: 10.1109/TPC.2016.2632842.
- Limaye, M.R., & Victor, D.A. (1991). Cross-Cultural Business Communication Research: State of the Art and Hypotheses for the 1990s. *Journal of Business Communication*, 28(3), 277–299.
- Liu, M., & Jackson, J. (2008). An exploration of Chinese EFL learners’ unwillingness to communicate and foreign language anxiety. *The Modern Language Journal*, 92(1), 71–86.
- López-Duarte, Cristina & Vidal-Suárez, Marta M., 2010. External uncertainty and entry mode choice: Cultural distance, political risk and language diversity. *International Business Review, Elsevier*, 19(6), 575-588.
- Lowe, K. B., Kroeck, K. G., & Sivasubramaniam, N. (1996). Effectiveness correlates of transformational and transactional leadership: A meta-analytic review of the MLQ literature. *Leadership Quarterly*, 7,385-425.

- Mach, M., Dolan, S. & Tzafrir, S. (2010). The differential effect of team members' trust on team performance: the mediation role of team cohesion. *Journal of Occupational and Organizational Psychology*, 83(3), 771-794.
- MacKenzie, S., & Podsakoff, P.M. (2012). Common Method Bias in Marketing: Causes, Mechanisms, and Procedural Remedies. *Journal of Retailing*, 88, 542-555.
- Mäkelä, K., Kalla, H., & Piekkari, R. (2007). Interpersonal similarity as a driver of knowledge sharing within multinational corporations. *International Business Review*, 16(1), 1-22. <https://doi.org/10.1016/j.ibusrev.2006.11.002>.
- Maloney, M.M., & Zellmer-Bruhn, M.E. (2006). Building bridges, windows and cultures: Mediating mechanisms between team heterogeneity and performance in global teams. *Management International Review*, 46(6), 697-720.
- Maltz, E. (1996). An enhanced framework for improving cooperation between marketing and other functions: The differential role of integrating mechanisms. *Journal of Market-Focused Management*, 2(1), 83-98.
- Marschan-Piekkari, R., Welch, D., & Welch, L. (1999). Adopting a common corporate language: IHRM implications. *International Journal of Human Resource Management*, 10(3), 377-390.
- Mat Roni, S. (2014). *Introduction to SPSS*, School of Business, Edith Cowan University, Australia.
- Maznevski, M., & Chudoba, K. (2000). Bridging Space Over Time: Global Virtual Team Dynamics and Effectiveness. *Organization Science*, 11(5), 473-492.
- McLeod, S. A. (2008). Likert scale. Retrieved from www.simplypsychology.org/likert-scale.html
- Mitchell, R., Nicholas, S., & Boyle, B. (2009). The Role of Openness to Cognitive Diversity and Group Processes in Knowledge Creation. *Small Group Research*, 40(5), 535-554. doi:10.1177/1046496409338302.
- Mohamed, L.M. (2016). Assessing the effects of transformational leadership: A study on Egyptian hotel employees. *Journal of Hospitality and Tourism Management*, 27, 49-59.
- Mumford, M. D. (Ed.). (2011). *Handbook of organizational creativity*. Academic Press.
- Mumford, M. D., & Hunter, S. T. (2005). Innovation in organizations: a multi-level perspective on creativity. *Multi Level Issues Strategy Methods* 4, 11–73. doi: 10.1016/S1475-9144(05)04001-4.
- Mumford, M.D., Scott, G.M., Gaddis, B. & Strange, J.M. (2002). Leading creative people: orchestrating expertise and relationships. *The Leadership Quarterly*, 13(6), 705-750.

- Mysirlaki, S., & Paraskeva, F. (2020). Emotional intelligence and transformational leadership in virtual teams: lessons from MMOGs. *Leadership & Organization Development Journal*, 41(4), 551-566.
- Nemiro, J. E. (2004). *Creativity in virtual teams: Key components for success*. The US: Pfeiffer.
- Nemiro, J. E. (2002). The creative process in virtual teams. *Communication Research Journal*, 14(1), 69-83.
- Nieves, J., Quintana, A., & Osorio, J. (2014). Knowledge-based resources and innovation in the hotel industry. *Journal of International Hospitality Management*, 38, 65-73.
- Ning-yu, T., Chi-yin, C., Xiao-mei, Z., & Meng-qi, H. (2013). Individual CQ, team CQ and organizational CQ: A multilevel adaptation model. *2013 International Conference on Management Science and Engineering 20th Annual Conference Proceedings*, 242-247.
- Noor, A.D., Hashim, H., & Ali, N. (2014). Factors Influencing Knowledge Sharing in Organizations: A Literature Review. *International Journal of Science and Research*, 3(9), 1314-1319.
- Nouri, R., Erez, M., Rockstuhl, T., Ang, S., Leshem-Calif, L., & Rafaeli, A. (2013). Taking the bite out of culture: The impact of task structure and task type on overcoming impediments to cross-cultural team performance. *Journal of Organizational Behavior*, 34(6), 739-763.
- Nusair, N., Ababneh, R. & Bae, Y. (2012). The impact of transformational leadership style on innovation as perceived by public employees in Jordan. *International Journal of Commerce and Management*, 22(3), 182-201.
- Ocker, R. J. (2007). Chapter 2. In Macgregor, S. P. & Torres-Coronas, T. (2007). *Higher creativity for virtual Teams: developing platforms for co-creation*. New York: IGI Global.
- Oldham, G. R., & Cummings, A. (1996). Employee creativity: personal and contextual factors at work. *Academic Management Journal*, 39(3), 607-634.
- Opdenakker, R., & Cuypers, C. (2019). *Effective virtual project teams: a design science approach to building a strategic momentum*. Switzerland: Springer.
- Panteli, N. & Sockalingam, S. (2005). Trust and conflict within virtual inter-organizational alliances: a framework for facilitating knowledge sharing. *Decision Support Systems*, 39(4), 599-617.
- Pettigrew, T. F. (1998). Intergroup contact theory. *Annual Review of Psychology*, 49(1), 65-85.
- Phipps, S.T., & Prieto, L. (2012). Knowledge Is Power? an Inquiry into Knowledge Management, Its Effects on Individual Creativity, and the Moderating Role of an Entrepreneurial Mindset. *Academy of Strategic Management Journal*, 11(1), 43.

- Podsakoff, P.M., MacKenzie, S.B. & Podsakoff, N.P. (2012). Sources of method bias in social science research and recommendations on how to control it. *Annual Review of Psychology*, 65(1), 539-569.
- Podsakoff, P.M., MacKenzie, S.M., Lee, J. & Podsakoff, N.P. (2003). Common method variance in behavioral research. *The Journal of Applied Psychology*, 88(5), 879-903, doi: 10.1037/0021-9010.88.5.879.
- Podsakoff, P.M., MacKenzie, S., Moorman, R., & Fetter, R. (1990). Transformational leader behaviors and their effects on followers' trust in leader, satisfaction, and organizational citizenship behaviors. *Leadership Quarterly*, 1(2), 107-142.
- Podsakoff, P.M. & Organ, D.W. (1986). Self-Reports in Organizational Research: Problems and Prospects. *Journal of Management*, 12, 531-544.
- Popadiuk, S., & Choo, C.W. (2006). Innovation and knowledge creation: How are these concepts related? *Int. J. Inf. Manag.*, 26(4), 302-312.
- Pothukuchi, V., Damanpour, F., Choi, J., Chen, C., Park, S. (2002). National and organizational culture differences and international joint venture performance. *Journal of International Business Studies*, 33, 243-265.
- Powell, A., Piccoli, G., & Ives, B. (2004). Virtual teams: a review of current literature and directions for future research. *ACM Sigmis Database*, 35(1), 6-3.
- Prati, L. M., Douglas, C., Ferris, G. R., Ammeter, A. P., & Buckley, M. R. (2003). Emotional intelligence, leadership effectiveness, and team outcomes. *International Journal of Organizational Analysis*, 11(1), 21–40.
- Presbitero, A. (2020). Foreign language skill, anxiety, cultural intelligence and individual task performance in global virtual teams: A cognitive perspective. *Journal of International Management*, 26(2), 100729.
- Randel, A.E., Galvin, B.M., Shore, L.M., Holcombe Ehrhart, K., Chung, B.G., Dean, M.A. & Kedharnath, U. (2018). Inclusive leadership: Realizing positive outcomes through belongingness and being valued for uniqueness. *Human Resource Management Review*, 28, 190-203.
- Reiter-Palmon, R., Wigert, B., & Vreede, T. D. (2012). “Team creativity and innovation: the effect of group composition, social processes, and cognition,” in *Handbook of Organizational Creativity*, ed. M. D. Mumford (Amsterdam: Elsevier Inc.), 295–326. doi: 10.1016/B978-0-12-374714-3.00013-6.
- Reiter-Palmon, R., Herman, A. E., & Yammarino, F. (2008). “Creativity and cognitive processes: a multi-level linkage between individual and team cognition,” in *Multi-level*

- Issues in Creativity and Innovation*, Vol. 7, eds M. D. Mumford, S. T. Hunter, and K. E. Bedell-Avers (Stamford, CT: JAI Press), 203–267.
- Roberson, Q., Park, H. (2007). Examining the link between diversity and firm performance: The effects of diversity reputation and leader racial diversity. *Group and Organization Management*, 32, 548-568
- Rothbart, M., & John, O. (1985). Social categorization and behavioral episodes: A cognitive analysis of the effects of intergroup contact. *Journal of Social Issues*, 41(3), 81-104.
- Ryssen, S.V., & Godar, S. (2000). Going international without going international: multinational virtual teams. *Journal of International Management*, 6(1), 49-60.
- Sachdev, S.B., & Verma, H. V. (2004). Relative importance of service quality dimensions: A multisectoral study. *Journal of service research*, 4(1), 93-116.
- Sankowska, A. (2013). Further understanding of links between interorganisational trust and enterprise innovativeness – from a perspective of an enterprise. *International Journal of Innovation and Learning*, 13(3), 308-321.
- Sarker, S., Ahuja, M., Sarker, S., & Kirkeby, S. (2011). The role of communication and trust in global virtual teams: a social network perspective. *Journal of Management Information Systems*, 28(1), 273-310.
- Sarker, S., Lau, F., & Sahay, S. (2001). Using an Adapted Grounded Theory Approach for Inductive Theory Building About Virtual Team Development. *Database for Advances in Information Systems*, 32(1), 38-56.
- Sawyer, O. O., Strauss, J., & Yan, J. (2005). Individual value structure and diversity attitudes: The moderating effects of age, gender, race, and religiosity. *Journal of Managerial Psychology*, 20(6), 498–521. <https://doi.org/10.1108/02683940510615442>.
- Scott, C. P. R., & Wildman, J. L. (2015). *Culture, communication, and conflict: A review of the global virtual team literature*. In J. L. Wildman & R. L. Griffith (Eds.), *Leading global teams: Translating multidisciplinary science to practice*. Springer Science Business Media. https://doi.org/10.1007/978-1-4939-2050-1_2.
- Schuman, H. & Presser, S. (1981). *Questions and Answers in Attitude Surveys*, New York: Academic Press.
- Settle-Murphy, N. M. (2012). *Leading effective virtual teams overcoming time and distance to achieve exceptional results*. Auerbach Publications.
- Shalley, C. E., & Gilson, L. L. (2004). What leaders need to know: a review of social and contextual factors that can foster or hinder creativity. *Leadership Quarterly*, 15(1), 33-53.

- Shalley, C., Zhou, J., & Oldham, G. (2004). The effects of personal and contextual characteristics on creativity: where should we go from here?. *Journal Management*, 30, 933–958. doi: 10.1016/j.jm.2004.06.007.
- Shin, S. J., & Zhou, J. (2003). Transformational leadership, conservation, and creativity: evidence from Korea. *Academy of Management Journal*, 46(6), 703-714.
- Solomon, A. & Steyn, R. (2017). Cultural intelligence: Concepts and definition statements. *South African Journal of Business Management*, 48(2), 67-74.
- Sosik, J. J., Avolio, B. J., & Kahai, S. S. (1997). Effects of leadership style and anonymity on group potency and effectiveness in a group decision support system environment. *Journal of Applied Psychology*, 82(1), 89-103.
- Sproull, L. & Kiesler, S. (1985). Reducing social context cues. *Management Science*, 32, 1492-1512.
- Stocker, F., Abib, G., Fürbringer, G.V., & Lourenço, M.L. (2017). Virtual teams and multiculturalism: differences and impacts of organizational culture in an IT company. *REBRAE*, 11(1), 35-55.
- Streiner, D. (2003). Starting at the beginning: an introduction to coefficient alpha and internal consistency. *Journal of personality assessment*, 80, 99-103.
- Taggar, S. (2002). Individual creativity and group ability to utilize individual creative resources: a multilevel model. *Academic Management Journal*, 45, 315–330.
- Tagle, T. M. (1992). Culture and communication. In G. A. Baker III (Ed.), *Cultural leadership: Inside America's community colleges* (pp. 61–78). Salisbury, MD: American Association of Community and Junior Colleges Publications.
- Tajfel, H. (1978). “Social categorization, social identity and social comparison”, in Tajfel, H. (ed.) *Differentiation between Social Groups: studies in the Social Psychology of Intergroup Relations*, Academic Press, London.
- Thomas, D.C., Liao, Y., Aycan, Z., Cerdin, J.L., Pekerti, A.A., Ravlin, E.C., Stahl, G.K., Lazarova, M.B., Fock, H., Arli, D., Moeller, M., Okimoto, T.G. & van de Vijver, F. (2015). Cultural intelligence: A theory-based, short form measure. *Journal of International Business Studies*, 46(9), 1099-1118.
- Thomas, D. C., & Inkson, K. (2003). *Cultural intelligence: People skills for global business*. San Francisco, CA: Berrett-Koehler Publishers.
- To, M.L., Tse, H., & Ashkanasy, N. (2015). A multilevel model of transformational leadership, affect, and creative process behavior in work teams. *Leadership Quarterly*, 26, 543-556.

- Tyran, K. L., & Gibson, C. B. (2008). Is what you see, what you get? The relationship among surface- and deep-level heterogeneity characteristics, group efficacy, and team reputation. *Group & Organization Management*, 33(1), 46–76.
- Ulijn, J.M., and Strother, M.B. (1995). *Communicating in Business and Technology: From Psycholinguistic Theory to International Practice*. Pieterlen: Peter Lang.
- Wan, W., Li, M. & Han, M. (2019). Review of Team Creativity. *Advances in Economics, Business and Management Research*, 106, 309-311.
- Wang, P., Rode, J. C., Shi, K., Luo, Z., & Chen, W. (2013). A workgroup climate perspective on the relationships among transformational leadership, work-group diversity, and employee creativity. *Group Organization Management*, 38(3), 334-360.
- Wang, G., Oh, I., Courtright, S.H., & Colbert, A. (2011). Transformational Leadership and Performance Across Criteria and Levels: A Meta-Analytic Review of 25 Years of Research. *Group & Organization Management*, 36(2), 223 - 270.
- Wang, P., & Rode, J. C. (2010). Transformational leadership and follower creativity: the moderating effects of identification with leader and organizational climate. *Human Relations*, 63(8), 1105-1128.
- Wang, X.H., Kimb, T.Y. & Lee, D.R. (2016). Cognitive diversity and team creativity: effects of team intrinsic motivation and transformational leadership. *Journal of Business Research*, 69(9), 3231-3239.
- Webster, J., & Wong, W. (2008). Comparing traditional and virtual group forms: identity, communication and trust in naturally occurring project teams. *The International Journal of Human Resource Management*, 19, 41 - 62.
- Weijters, B., Schillewaert, N. & Geuens, M. (2008). Assessing Response Styles Across Modes of Data Collection. *Journal of the Academy of Marketing Science*, 36(3), 409–22.
- Welch, D.E, Welch, L.S. & Marschan-Piekkari, R. (2001). The Persistent Impact of Language on Global Operations. *Prometheus*, 19(3), 193-209, doi: 10.1080/08109020110072180.
- Wiersema, M.F., & Bantel, K.A. (1992). Top Management Team Demography and Corporate Strategic Change. *Academy of Management Journal*, 35(1), 91-121.
- Williams, Larry J., Nathan Hartman & Flavia Cavazotte. (2010). Method Variance and Marker Variables: A Review and Comprehensive CFA Marker Technique. *Organizational Research Methods*, 13(3), 477–514.
- Williams, Larry J., Mark B. Gavin and Margaret L. Williams. (1996). Measurement and Non-measurement Processes with Negative Affectivity and Employee Attitudes. *Journal of Applied Psychology*, 81(1), 88–101.

- Winn, W., & Snyder, D. (1996). Cognitive Perspectives in Psychology. In D. H. Jonassen (Ed.), *Handbook of Research for Educational Communications and Technology* (pp. 112-142). New York: Macmillan. Retrieved April 2006, from <http://www.aect.org/edtech/ed1/pdf/05.pdf>
- Woodman R. W., Sawyer J. E. & Griffin R. W. (1993). Toward a theory of organizational creativity. *Academy of Management Review*, 18 (2), 293–321.
- Wu, J., Zhao, H., & Pan, D. (2016). “Effects of different trust on team creativity: taking knowledge sharing as a mediator,” in *Proceedings of the International Symposium on Knowledge and Systems Sciences*, 44–56, Springer Singapore, Kobe, Japan.
- Wu, H. & Leung, S. (2017). *Can Likert Scales be Treated as Interval Scales?- A Simulation Study*. Journal of Social Service Research, 43(4), 527-532, DOI: 10.1080/01488376.2017.1329775.
- Zakaria, N., Yusof, S., & Muton, N.A. (2020). It Is Certainly a Different Manner!: Working in Global Virtual Teams With Divergent Intercultural Communication Styles. *Sociology*. DOI:10.4018/978-1-7998-3744-2.ch004
- Zander, L. (2005). Communication and country clusters. A study of language and leadership preferences. *International Studies of Management and Organization*, 35(1), 83-103.
- Zenger, T., & Lawrence, B. (1989). Organizational Demography: The Differential Effects of Age and Tenure Distributions on Technical Communication. *Academy of Management Journal*, 32(2), 353-376.
- Zhang, X. & Bartol, K.M. (2010). Linking empowering leadership and employee creativity: the influence of psychological empowerment, intrinsic motivation and creative process engagement. *Academy of Management Journal*, 53(1), 107-128.
- Zuraik, A., & Kelly, L. (2019). The role of CEO transformational leadership and innovation climate in exploration and exploitation. *European Journal of Innovation Management*, 22(1), 84-104.

APPENDICES

Appendix 1 – Team Cultural Intelligence

1	2	3	4	5	6	7
Strongly disagree	Disagree	Somewhat disagree	Neither agree or disagree	Somewhat agree	Agree	Strongly agree

Team cultural metacognition

- TCM1 The team is conscious of the cultural knowledge it uses when interacting with people with different cultural backgrounds
- TCM2 The team adjusts its cultural knowledge as it interacts with people from a culture that is unfamiliar to the team
- TCM3 The team is conscious of the cultural knowledge it applies to cross-cultural interactions
- TCM4 The team checks the accuracy of the cultural knowledge it uses when interacting with people from different cultures

Team coexistence and meaningful participation

- FT1 The team uses a combination of norms or practices from different members' cultures
- FT2 The team tolerates members following their own cultural norms and practices
- FT3 The team accepts that members from different cultures have different ways of expressing themselves

- | | |
|-----|---|
| FT4 | The team uses some norms and practices from some members and some from others |
| FT5 | Team members participate in team discussions openly and freely |
| FT6 | Each team member participates in decision-making |
| FT7 | All team members are encouraged to participate in team discussions |

Team openness to diversity

- | | |
|------|--|
| OD1 | The team enjoys doing jobs with people despite language barriers |
| OD2 | The team makes an extra effort to listen to people speaking different languages |
| OD3 | The team is keen to learn from people even when communication is slowed down by language barriers |
| OD4 | The team is less willing to communicate when faced with people speaking a different language (R) |
| OD5 | In my team, members enjoy doing jobs with people of different ethnicity, gender, and/or age |
| OD6 | In my team, members make an extra effort to listen to people of different ethnicity, gender, and/or age |
| OD7 | In my team, members make an extra effort to listen to people who hold different work values and/or motivations |
| OD8 | In my team, members are keen to learn from people who have different work values and/or motivations |
| OD9 | In my team, members enjoy doing jobs with people from different professional background and/or work experiences |
| OD10 | In my team, members make an extra effort to listen to people from different professional backgrounds and/or work experiences |

Source: Bücken and Korzilius (2020)

Appendix 2 – Team Creativity

1	2	3	4	5	6	7
Strongly disagree	Disagree	Somewhat disagree	Neither agree or disagree	Somewhat agree	Agree	Strongly agree

Team creativity

The team is able to develop novel (innovative) solutions to problems

The team's ideas are useful for achieving the team's goals

Source: Buecker and Korzilius (2020)

Appendix 3 – Language Proficiency

1	2	3	4	5	6	7
Very low	Low	A little low	Neither low nor high	A little high	High	Very high

Self-perceived English language proficiency

- Items: (1) I rate my reading ability in English as...;
(2) I rate my listening ability in English as...;
(3) I rate my writing ability in English as...;
(4) I rate my speaking ability in English as...;
(5) I rate my overall English ability as...;

Source: Liu and Jackson (2008).

Appendix 4 – Team trust

1	2	3	4	5	6	7
Strongly disagree	Disagree	Somewhat disagree	Neither agree or disagree	Somewhat agree	Agree	Strongly agree

I am able to count on my team members for help if I have difficulties with my job.

I am confident that my team members will take my interests into account when making work-related decisions.

I am confident that my team members will keep me informed about issues that concern my work.

I can rely on my team members to keep their word.

I trust my team members.

Source: De Jong and Elfring (2010)

Appendix 5 – Transformational leadership

Transformational leadership consists of five following dimensions: idealized influence (attribute and behavior), inspirational motivation, intellectual stimulation, and individualized consideration.

Sample Items From the Multifactor

Leadership Questionnaire (MLQ) Form 5X-Short

1	2	3	4	5
Not at all	Once in a while	Sometimes	Fairly often	Frequently, if not always

Transformational Leadership Styles

Idealized Influence (Attributes): I go beyond self-interest for the good of the group

Idealized Influence (Behaviors): I consider the moral and ethical consequences of decisions

Inspirational Motivation: I talk optimistically about the future

Intellectual Stimulation: I re-examine critical assumptions to question whether they are appropriate

Individualized Consideration: I help others to develop their strengths

*Source: Reproduced by special permission of the publisher, MIND GARDEN, Inc.,
www.mindgarden.com from the Multifactor Leadership Questionnaire by Bernard M. Bass
and Bruce J. Avolio. Copyright © 1995, 2000, 2004 by Bernard M. Bass and Bruce J. Avolio.*

Appendix 6 – Sample size characteristics

1. Gender

		NGender2			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	94	52.5	52.5	52.5
	Male	85	47.5	47.5	100.0
	Total	179	100.0	100.0	

2. Age

		Recode Age			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	19	2	1.1	1.2	1.2
	21	2	1.1	1.2	2.4
	22	4	2.2	2.4	4.7
	23	2	1.1	1.2	5.9
	24	3	1.7	1.8	7.6
	25	8	4.5	4.7	12.4
	26	10	5.6	5.9	18.2
	27	8	4.5	4.7	22.9
	28	7	3.9	4.1	27.1
	29	15	8.4	8.8	35.9
	30	12	6.7	7.1	42.9
	31	7	3.9	4.1	47.1
	32	11	6.1	6.5	53.5
	33	9	5.0	5.3	58.8
	34	3	1.7	1.8	60.6
	35	7	3.9	4.1	64.7
	36	2	1.1	1.2	65.9
	37	7	3.9	4.1	70.0
	38	7	3.9	4.1	74.1
	39	2	1.1	1.2	75.3
	40	3	1.7	1.8	77.1
	41	3	1.7	1.8	78.8
	42	1	.6	.6	79.4
	43	4	2.2	2.4	81.8
	44	1	.6	.6	82.4

45	2	1.1	1.2	83.5
46	1	.6	.6	84.1
47	1	.6	.6	84.7
48	2	1.1	1.2	85.9
49	1	.6	.6	86.5
50	3	1.7	1.8	88.2
51	2	1.1	1.2	89.4
52	2	1.1	1.2	90.6
53	2	1.1	1.2	91.8
54	4	2.2	2.4	94.1
55	2	1.1	1.2	95.3
57	2	1.1	1.2	96.5
58	3	1.7	1.8	98.2
60	1	.6	.6	98.8
61	1	.6	.6	99.4
63	1	.6	.6	100.0
Total	170	95.0	100.0	
Missing System	9	5.0		
Total	179	100.0		

3. Position

		NPosition			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Team member	125	69.8	73.5	73.5
	Team leader/Supervisor	45	25.1	26.5	100.0
	Total	170	95.0	100.0	
Missing System		9	5.0		
Total		179	100.0		

4. Contract type

		Contract type			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	full time contract	160	89.4	94.1	94.1
	part-time contract 50-80%	8	4.5	4.7	98.8
	part-time contract less than 50%	2	1.1	1.2	100.0
	Total	170	95.0	100.0	
Missing System		9	5.0		
Total		179	100.0		

5. Working type

		Virtuality		Valid Percent	Cumulative Percent
		Frequency	Percent		
Valid	Working virtually	113	63.1	66.5	66.5
	Not working virtually	9	5.0	5.3	71.8
	A mixture of both	48	26.8	28.2	100.0
	Total	170	95.0	100.0	
Missing	System	9	5.0		
Total		179	100.0		

6. Reason of working virtually

		Reason of working virtually		Valid Percent	Cumulative Percent
		Frequency	Percent		
Valid	Covid	88	49.2	90.7	90.7
	International cooperation and Covid	5	2.8	5.2	95.9
	Other reasons	4	2.2	4.1	100.0
	Total	97	54.2	100.0	
Missing	System	82	45.8		
Total		179	100.0		

7. Frequency of working virtually

		Frequency of working virtually		Valid Percent	Cumulative Percent
		Frequency	Percent		
Valid	Never	5	2.8	3.1	3.1
	Seldom	9	5.0	5.6	8.6
	About half the time	21	11.7	13.0	21.6
	Usually	44	24.6	27.2	48.8
	Always	83	46.4	51.2	100.0
	Total	162	90.5	100.0	
Missing	System	17	9.5		
Total		179	100.0		

8. Time working with current team

		Time with Team		Valid Percent	Cumulative Percent
		Frequency	Percent		
Valid	Less than 1 year	48	26.8	28.2	28.2
	From 1 to under 5 years	107	59.8	62.9	91.2
	From 5 to under 10 years	8	4.5	4.7	95.9

	From 10 to under 15 years	3	1.7	1.8	97.6
	From 15 and above 15 years	4	2.2	2.4	100.0
	Total	170	95.0	100.0	
Missing	System	9	5.0		
Total		179	100.0		

9. Department name

		Dept Name 1			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Finance/Accounting/Tax	23	12.8	13.5	13.5
	Marketing	15	8.4	8.8	22.4
	HR/Training	6	3.4	3.5	25.9
	Logistics	8	4.5	4.7	30.6
	Other department or function, please specify	39	21.8	22.9	53.5
	Products/Quality Control	49	27.4	28.8	82.4
	Customer service	17	9.5	10.0	92.4
	Legal/Compliance	5	2.8	2.9	95.3
	Sales	8	4.5	4.7	100.0
	Total	170	95.0	100.0	
Missing	System	9	5.0		
Total		179	100.0		

Appendix 7 – Descriptive and missing data analysis

1. Descriptive

Statistics											
		Team CQ 1	Team CQ 2	Team CQ 3	Team CQ 4	Team CQ 5	Team CQ 6	Team CQ 7	Team CQ 8	Team CQ 9	Team CQ 10
N	Valid	182	182	182	182	182	182	182	182	182	182
	Missing	0	0	0	0	0	0	0	0	0	0
Mean		5.84	5.74	5.94	5.48	5.35	5.69	6.13	5.33	6.16	5.60
Median		6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Std. Deviation		1.133	1.120	1.036	1.349	1.130	1.021	.873	1.313	1.057	1.234
Skewness		-1.387	-1.529	-1.415	-1.045	-.668	-1.272	-1.104	-1.192	-1.854	-1.104
Std. Error of Skewness		.180	.180	.180	.180	.180	.180	.180	.180	.180	.180
Kurtosis		2.338	3.198	2.373	.895	.013	2.887	1.328	1.594	4.817	1.149
Std. Error of Kurtosis		.358	.358	.358	.358	.358	.358	.358	.358	.358	.358

Team CQ 11	Team CQ 12	Team CQ 14	Team CQ 15	Team CQ 16	Team CQ 17	Team CQ 18	Team CQ 19	Team CQ 20	Team CQ 21	Creativity 1	Creativity 2
182	182	182	182	182	182	182	182	182	182	180	180
0	0	0	0	0	0	0	0	0	0	2	2
6.23	6.18	5.85	5.73	6.15	5.96	6.02	5.86	5.63	5.71	5.74	5.80
6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
1.052	.970	.907	1.082	.933	1.045	.907	1.057	1.114	1.210	.992	.948
-2.547	-1.608	-1.003	-1.220	-1.714	-1.410	-1.110	-1.498	-1.013	-1.325	-1.237	-.943
.180	.180	.180	.180	.180	.180	.180	.180	.180	.180	.181	.181
8.643	3.093	1.751	2.815	4.391	2.645	1.930	3.480	1.295	2.071	2.429	1.527
.358	.358	.358	.358	.358	.358	.358	.358	.358	.358	.360	.360

Language 1	Language 2	Language 3	Language 4	Language 5	Leadership 1	Leadership 2	Leadership 3	Leadership 4	Leadership 5	Trust 1	Trust 2
180	180	180	180	180	179	179	179	179	179	179	179
2	2	2	2	2	3	3	3	3	3	3	3
5.68	5.70	5.94	6.10	5.74	4.12	4.08	3.99	4.28	4.18	6.22	5.89
6.00	6.00	6.00	6.00	6.00	4.00	4.00	4.00	4.00	4.00	6.00	6.00
1.071	1.123	.967	.916	1.020	.940	.864	.880	.802	.939	.920	.980
-.761	-.797	-.974	-.950	-.842	-1.233	-.892	-.727	-1.289	-1.201	-1.544	-1.161
.181	.181	.181	.181	.181	.182	.182	.182	.182	.182	.182	.182
.114	.038	1.057	.417	.399	1.550	.876	.449	2.364	1.224	3.189	1.985
.360	.360	.360	.360	.360	.361	.361	.361	.361	.361	.361	.361

Trust 2	Trust 3	Trust 4	Trust 5	Age	Gender	Recode TeamCQ 13
179	179	179	179	170	170	182
3	3	3	3	12	12	0
5.89	6.11	6.25	6.14	34.88	1.52	4.58
6.00	6.00	6.00	6.00	Double-click to activate	2.00	5.00
.980	.974	.806	.853	.513		1.970
-1.161	-1.394	-1.205	-.822	.978	.038	-.473
.182	.182	.182	.182	.186	.186	.180
1.985	2.312	1.765	.109	.159	-1.687	-1.186
.361	.361	.361	.361	.370	.370	.358

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness	Std. Error	Kurtosis	Std. Error
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic		Statistic	
Team CQ 1	182	1	7	5.84	1.133	-1.387	.180	2.338	.358
Team CQ 2	182	1	7	5.74	1.120	-1.529	.180	3.198	.358
Team CQ 3	182	2	7	5.94	1.036	-1.415	.180	2.373	.358
Team CQ 4	182	1	7	5.48	1.349	-1.045	.180	.895	.358
Team CQ 5	182	2	7	5.35	1.130	-.668	.180	.013	.358
Team CQ 6	182	1	7	5.69	1.021	-1.272	.180	2.887	.358
Team CQ 7	182	3	7	6.13	.873	-1.104	.180	1.328	.358
Team CQ 8	182	1	7	5.33	1.313	-1.192	.180	1.594	.358
Team CQ 9	182	1	7	6.16	1.057	-1.854	.180	4.817	.358
Team CQ 10	182	2	7	5.60	1.234	-1.104	.180	1.149	.358
Team CQ 11	182	1	7	6.23	1.052	-2.547	.180	8.643	.358
Team CQ 12	182	2	7	6.18	.970	-1.608	.180	3.093	.358
Team CQ 14	182	2	7	5.85	.907	-1.003	.180	1.751	.358
Team CQ 15	182	1	7	5.73	1.082	-1.220	.180	2.815	.358
Team CQ 16	182	2	7	6.15	.933	-1.714	.180	4.391	.358
Team CQ 17	182	2	7	5.96	1.045	-1.410	.180	2.645	.358
Team CQ 18	182	2	7	6.02	.907	-1.110	.180	1.930	.358
Team CQ 19	182	1	7	5.86	1.057	-1.498	.180	3.480	.358

Team CQ 20	182	2	7	5.63	1.114	-1.013	.180	1.295	.358
Team CQ 21	182	1	7	5.71	1.210	-1.325	.180	2.071	.358
Creativity 1	180	2	7	5.74	.992	-1.237	.181	2.429	.360
Creativity 2	180	2	7	5.80	.948	-.943	.181	1.527	.360
Language 1	180	2	7	5.68	1.071	-.761	.181	.114	.360
Language 2	180	2	7	5.70	1.123	-.797	.181	.038	.360
Language 3	180	2	7	5.94	.967	-.974	.181	1.057	.360
Language 4	180	3	7	6.10	.916	-.950	.181	.417	.360
Language 5	180	2	7	5.74	1.020	-.842	.181	.399	.360
Leadership 1	179	1	5	4.12	.940	-1.233	.182	1.550	.361
Leadership 2	179	1	5	4.08	.864	-.892	.182	.876	.361
Leadership 3	179	1	5	3.99	.880	-.727	.182	.449	.361
Leadership 4	179	1	5	4.28	.802	-1.289	.182	2.364	.361
Leadership 5	179	1	5	4.18	.939	-1.201	.182	1.224	.361
Trust 1	179	2	7	6.22	.920	-1.544	.182	3.189	.361
Trust 2	179	2	7	5.89	.980	-1.161	.182	1.985	.361
Trust 3	179	2	7	6.11	.974	-1.394	.182	2.312	.361
Trust 4	179	3	7	6.25	.806	-1.205	.182	1.765	.361
Trust 5	179	4	7	6.14	.853	-.822	.182	.109	.361
Age	170	19	63	34.88	9.963	.978	.186	.159	.370
Gender	170	1	3	1.52	.513	.038	.186	-1.687	.370
Recode TeamCQ 13	182	1	7	4.58	1.970	-.473	.180	-1.186	.358
Valid N (listwise)	170								

Descriptives

			Statistic	Std. Error
Team CQ 1	Mean		5.87	.081
	95% Confidence Interval for Mean	Lower Bound	5.71	
		Upper Bound	6.03	
	5% Trimmed Mean		5.97	
	Median		6.00	
	Variance		1.173	
	Std. Deviation		1.083	
	Minimum		2	
	Maximum		7	
	Range		5	
	Interquartile Range		2	

	Skewness		-1.179	.182
	Kurtosis		1.308	.361
Team CQ 2	Mean		5.77	.080
	95% Confidence Interval for Mean	Lower Bound	5.61	
		Upper Bound	5.92	
	5% Trimmed Mean		5.87	
	Median		6.00	
	Variance		1.147	
	Std. Deviation		1.071	
	Minimum		2	
	Maximum		7	
	Range		5	
	Interquartile Range		1	
	Skewness		-1.351	.182
	Kurtosis		2.426	.361
Team CQ 3	Mean		5.94	.077
	95% Confidence Interval for Mean	Lower Bound	5.79	
		Upper Bound	6.10	
	5% Trimmed Mean		6.05	
	Median		6.00	
	Variance		1.064	
	Std. Deviation		1.032	
	Minimum		2	
	Maximum		7	
	Range		5	
	Interquartile Range		1	
	Skewness		-1.440	.182
	Kurtosis		2.511	.361
Team CQ 4	Mean		5.49	.098
	95% Confidence Interval for Mean	Lower Bound	5.30	
		Upper Bound	5.69	
	5% Trimmed Mean		5.60	
	Median		6.00	
	Variance		1.723	
	Std. Deviation		1.313	

	Minimum		1	
	Maximum		7	
	Range		6	
	Interquartile Range		1	
	Skewness		-.969	.182
	Kurtosis		.669	.361
Team CQ 5	Mean		5.35	.084
	95% Confidence Interval for Mean	Lower Bound	5.18	
		Upper Bound	5.51	
	5% Trimmed Mean		5.40	
	Median		6.00	
	Variance		1.250	
	Std. Deviation		1.118	
	Minimum		2	
	Maximum		7	
	Range		5	
	Interquartile Range		1	
	Skewness		-.669	.182
	Kurtosis		.062	.361
Team CQ 6	Mean		5.71	.072
	95% Confidence Interval for Mean	Lower Bound	5.57	
		Upper Bound	5.85	
	5% Trimmed Mean		5.78	
	Median		6.00	
	Variance		.926	
	Std. Deviation		.962	
	Minimum		2	
	Maximum		7	
	Range		5	
	Interquartile Range		1	
	Skewness		-.955	.182
	Kurtosis		1.370	.361
Team CQ 7	Mean		6.13	.066
	95% Confidence Interval for Mean	Lower Bound	6.00	
		Upper Bound	6.26	

	5% Trimmed Mean		6.22	
	Median		6.00	
	Variance		.768	
	Std. Deviation		.877	
	Minimum		3	
	Maximum		7	
	Range		4	
	Interquartile Range		1	
	Skewness		-1.126	.182
	Kurtosis		1.365	.361
Team CQ 8	Mean		5.35	.096
	95% Confidence Interval for Mean	Lower Bound	5.16	
		Upper Bound	5.54	
	5% Trimmed Mean		5.45	
	Median		6.00	
	Variance		1.643	
	Std. Deviation		1.282	
	Minimum		1	
	Maximum		7	
	Range		6	
	Interquartile Range		1	
	Skewness		-1.126	.182
	Kurtosis		1.456	.361
Team CQ 9	Mean		6.18	.078
	95% Confidence Interval for Mean	Lower Bound	6.03	
		Upper Bound	6.33	
	5% Trimmed Mean		6.30	
	Median		6.00	
	Variance		1.080	
	Std. Deviation		1.039	
	Minimum		1	
	Maximum		7	
	Range		6	
	Interquartile Range		1	
	Skewness		-1.883	.182
	Kurtosis		5.170	.361
Team CQ 10	Mean		5.60	.092

	95% Confidence Interval for Mean	Lower Bound	5.42	
		Upper Bound	5.78	
	5% Trimmed Mean		5.71	
	Median		6.00	
	Variance		1.523	
	Std. Deviation		1.234	
	Minimum		2	
	Maximum		7	
	Range		5	
	Interquartile Range		1	
	Skewness		-1.117	.182
	Kurtosis		1.194	.361
Team CQ 11	Mean		6.26	.074
	95% Confidence Interval for Mean	Lower Bound	6.12	
		Upper Bound	6.41	
	5% Trimmed Mean		6.40	
	Median		6.00	
	Variance		.970	
	Std. Deviation		.985	
	Minimum		1	
	Maximum		7	
	Range		6	
	Interquartile Range		1	
	Skewness		-2.404	.182
	Kurtosis		8.122	.361
Team CQ 12	Mean		6.18	.072
	95% Confidence Interval for Mean	Lower Bound	6.04	
		Upper Bound	6.33	
	5% Trimmed Mean		6.30	
	Median		6.00	
	Variance		.926	
	Std. Deviation		.963	
	Minimum		2	
	Maximum		7	
	Range		5	

	Interquartile Range		1	
	Skewness		-1.639	.182
	Kurtosis		3.304	.361
Team CQ 14	Mean		5.84	.068
	95% Confidence Interval for Mean	Lower Bound	5.71	
		Upper Bound	5.98	
	5% Trimmed Mean		5.91	
	Median		6.00	
	Variance		.829	
	Std. Deviation		.911	
	Minimum		2	
	Maximum		7	
	Range		5	
	Interquartile Range		1	
	Skewness		-.993	.182
	Kurtosis		1.710	.361
Team CQ 15	Mean		5.75	.077
	95% Confidence Interval for Mean	Lower Bound	5.60	
		Upper Bound	5.91	
	5% Trimmed Mean		5.81	
	Median		6.00	
	Variance		1.063	
	Std. Deviation		1.031	
	Minimum		1	
	Maximum		7	
	Range		6	
	Interquartile Range		1	
	Skewness		-.953	.182
	Kurtosis		1.691	.361
Team CQ 16	Mean		6.15	.070
	95% Confidence Interval for Mean	Lower Bound	6.01	
		Upper Bound	6.29	
	5% Trimmed Mean		6.26	
	Median		6.00	
	Variance		.882	

	Std. Deviation		.939	
	Minimum		2	
	Maximum		7	
	Range		5	
	Interquartile Range		1	
	Skewness		-1.706	.182
	Kurtosis		4.316	.361
Team CQ 17	Mean		5.96	.078
	95% Confidence Interval for Mean	Lower Bound	5.81	
		Upper Bound	6.11	
	5% Trimmed Mean		6.07	
	Median		6.00	
	Variance		1.083	
	Std. Deviation		1.041	
	Minimum		2	
	Maximum		7	
	Range		5	
	Interquartile Range		1	
	Skewness		-1.434	.182
	Kurtosis		2.791	.361
Team CQ 18	Mean		6.02	.068
	95% Confidence Interval for Mean	Lower Bound	5.88	
		Upper Bound	6.15	
	5% Trimmed Mean		6.09	
	Median		6.00	
	Variance		.837	
	Std. Deviation		.915	
	Minimum		2	
	Maximum		7	
	Range		5	
	Interquartile Range		1	
	Skewness		-1.102	.182
	Kurtosis		1.851	.361
Team CQ 19	Mean		5.87	.079
	95% Confidence Interval for Mean	Lower Bound	5.71	
		Upper Bound		

	Upper Bound		6.02	
	5% Trimmed Mean		5.97	
	Median		6.00	
	Variance		1.128	
	Std. Deviation		1.062	
	Minimum		1	
	Maximum		7	
	Range		6	
	Interquartile Range		2	
	Skewness		-1.521	.182
	Kurtosis		3.517	.361
Team CQ 20	Mean		5.62	.084
	95% Confidence Interval for Mean	Lower Bound	5.46	
		Upper Bound	5.78	
	5% Trimmed Mean		5.71	
	Median		6.00	
	Variance		1.248	
	Std. Deviation		1.117	
	Minimum		2	
	Maximum		7	
	Range		5	
	Interquartile Range		1	
	Skewness		-1.014	.182
	Kurtosis		1.281	.361
Team CQ 21	Mean		5.73	.089
	95% Confidence Interval for Mean	Lower Bound	5.56	
		Upper Bound	5.91	
	5% Trimmed Mean		5.85	
	Median		6.00	
	Variance		1.411	
	Std. Deviation		1.188	
	Minimum		1	
	Maximum		7	
	Range		6	
	Interquartile Range		2	
	Skewness		-1.297	.182

Creativity 1	Kurtosis		2.088	.361
	Mean		5.75	.074
	95% Confidence Interval for Mean	Lower Bound	5.60	
		Upper Bound	5.90	
	5% Trimmed Mean		5.83	
	Median		6.00	
	Variance		.987	
	Std. Deviation		.993	
	Minimum		2	
	Maximum		7	
	Range		5	
	Interquartile Range		1	
	Skewness		-1.250	.182
	Kurtosis		2.453	.361
Creativity 2	Mean		5.80	.071
	95% Confidence Interval for Mean	Lower Bound	5.66	
		Upper Bound	5.94	
	5% Trimmed Mean		5.88	
	Median		6.00	
	Variance		.900	
	Std. Deviation		.949	
	Minimum		2	
	Maximum		7	
	Range		5	
	Interquartile Range		1	
	Skewness		-.957	.182
	Kurtosis		1.554	.361
Language 1	Mean		5.69	.080
	95% Confidence Interval for Mean	Lower Bound	5.53	
		Upper Bound	5.84	
	5% Trimmed Mean		5.75	
	Median		6.00	
	Variance		1.138	
	Std. Deviation		1.067	
	Minimum		2	

	Maximum		7	
	Range		5	
	Interquartile Range		1	
	Skewness		-.780	.182
	Kurtosis		.178	.361
Language 2	Mean		5.71	.084
	95% Confidence Interval for Mean	Lower Bound	5.54	
		Upper Bound	5.87	
	5% Trimmed Mean		5.78	
	Median		6.00	
	Variance		1.252	
	Std. Deviation		1.119	
	Minimum		2	
	Maximum		7	
	Range		5	
	Interquartile Range		2	
	Skewness		-.816	.182
	Kurtosis		.098	.361
Language 3	Mean		5.95	.072
	95% Confidence Interval for Mean	Lower Bound	5.81	
		Upper Bound	6.09	
	5% Trimmed Mean		6.02	
	Median		6.00	
	Variance		.936	
	Std. Deviation		.967	
	Minimum		2	
	Maximum		7	
	Range		5	
	Interquartile Range		1	
	Skewness		-.991	.182
	Kurtosis		1.095	.361
Language 4	Mean		6.11	.068
	95% Confidence Interval for Mean	Lower Bound	5.97	
		Upper Bound	6.24	
	5% Trimmed Mean		6.18	

	Median		6.00	
	Variance		.837	
	Std. Deviation		.915	
	Minimum		3	
	Maximum		7	
	Range		4	
	Interquartile Range		1	
	Skewness		-.969	.182
	Kurtosis		.469	.361
Language 5	Mean		5.75	.076
	95% Confidence Interval for Mean	Lower Bound	5.60	
		Upper Bound	5.90	
	5% Trimmed Mean		5.80	
	Median		6.00	
	Variance		1.043	
	Std. Deviation		1.021	
	Minimum		2	
	Maximum		7	
	Range		5	
	Interquartile Range		1	
	Skewness		-.854	.182
	Kurtosis		.413	.361
Leadership 1	Mean		4.12	.070
	95% Confidence Interval for Mean	Lower Bound	3.98	
		Upper Bound	4.26	
	5% Trimmed Mean		4.22	
	Median		4.00	
	Variance		.884	
	Std. Deviation		.940	
	Minimum		1	
	Maximum		5	
	Range		4	
	Interquartile Range		1	
	Skewness		-1.233	.182
	Kurtosis		1.550	.361
Leadership 2	Mean		4.08	.065

	95% Confidence Interval for Mean	Lower Bound	3.95	
		Upper Bound	4.21	
	5% Trimmed Mean		4.15	
	Median		4.00	
	Variance		.747	
	Std. Deviation		.864	
	Minimum		1	
	Maximum		5	
	Range		4	
	Interquartile Range		1	
	Skewness		-.892	.182
	Kurtosis		.876	.361
Leadership 3	Mean		3.99	.066
	95% Confidence Interval for Mean	Lower Bound	3.86	
		Upper Bound	4.12	
	5% Trimmed Mean		4.06	
	Median		4.00	
	Variance		.775	
	Std. Deviation		.880	
	Minimum		1	
	Maximum		5	
	Range		4	
	Interquartile Range		2	
	Skewness		-.727	.182
	Kurtosis		.449	.361
Leadership 4	Mean		4.28	.060
	95% Confidence Interval for Mean	Lower Bound	4.17	
		Upper Bound	4.40	
	5% Trimmed Mean		4.36	
	Median		4.00	
	Variance		.643	
	Std. Deviation		.802	
	Minimum		1	
	Maximum		5	
	Range		4	

	Interquartile Range		1	
	Skewness		-1.289	.182
	Kurtosis		2.364	.361
Leadership 5	Mean		4.18	.070
	95% Confidence Interval for Mean	Lower Bound	4.05	
		Upper Bound	4.32	
	5% Trimmed Mean		4.28	
	Median		4.00	
	Variance		.882	
	Std. Deviation		.939	
	Minimum		1	
	Maximum		5	
	Range		4	
	Interquartile Range		1	
	Skewness		-1.201	.182
	Kurtosis		1.224	.361
Trust 1	Mean		6.22	.069
	95% Confidence Interval for Mean	Lower Bound	6.08	
		Upper Bound	6.35	
	5% Trimmed Mean		6.32	
	Median		6.00	
	Variance		.846	
	Std. Deviation		.920	
	Minimum		2	
	Maximum		7	
	Range		5	
	Interquartile Range		1	
	Skewness		-1.544	.182
	Kurtosis		3.189	.361
Trust 2	Mean		5.89	.073
	95% Confidence Interval for Mean	Lower Bound	5.75	
		Upper Bound	6.04	
	5% Trimmed Mean		5.97	
	Median		6.00	
	Variance		.961	

	Std. Deviation		.980	
	Minimum		2	
	Maximum		7	
	Range		5	
	Interquartile Range		2	
	Skewness		-1.161	.182
	Kurtosis		1.985	.361
Trust 3	Mean		6.11	.073
	95% Confidence Interval for Mean	Lower Bound	5.96	
		Upper Bound	6.25	
	5% Trimmed Mean		6.20	
	Median		6.00	
	Variance		.949	
	Std. Deviation		.974	
	Minimum		2	
	Maximum		7	
	Range		5	
	Interquartile Range		1	
	Skewness		-1.394	.182
	Kurtosis		2.312	.361
Trust 4	Mean		6.25	.060
	95% Confidence Interval for Mean	Lower Bound	6.13	
		Upper Bound	6.37	
	5% Trimmed Mean		6.34	
	Median		6.00	
	Variance		.650	
	Std. Deviation		.806	
	Minimum		3	
	Maximum		7	
	Range		4	
	Interquartile Range		1	
	Skewness		-1.205	.182
	Kurtosis		1.765	.361
Trust 5	Mean		6.14	.064
	95% Confidence Interval for Mean	Lower Bound	6.01	

	Upper Bound		6.27	
	5% Trimmed Mean		6.21	
	Median		6.00	
	Variance		.728	
	Std. Deviation		.853	
	Minimum		4	
	Maximum		7	
	Range		3	
	Interquartile Range		1	
	Skewness		-.822	.182
	Kurtosis		.109	.361
	Mean		4.61	.147
Recode TeamCQ 13	95% Confidence Interval for Mean	Lower Bound	4.32	
		Upper Bound	4.90	
	5% Trimmed Mean		4.68	
	Median		5.00	
	Variance		3.857	
	Std. Deviation		1.964	
	Minimum		1	
	Maximum		7	
	Range		6	
	Interquartile Range		3	
	Skewness		-.489	.182
	Kurtosis		-1.174	.361

All of variables have mean greater than median or mean smaller than median. It means the distributions are negatively or positively skewed.

2. Missing value analysis

Missing Patterns (cases with missing values)

Case	# Missing	% Missing	TeamCQ1	TeamCQ2	TeamCQ3	TeamCQ4	TeamCQ5	TeamCQ6	TeamCQ7	TeamCQ8	TeamCQ9	TeamCQ10	TeamCQ11	TeamCQ12
R88	1	2.5												
R43	2	5.0												
R68	2	5.0		-	-	-			-					
R69	2	5.0			-				-		-			
R35	2	5.0				-				-				
R103	2	5.0												
R118	2	5.0												
R121	2	5.0												
R127	2	5.0					-							-
R173	2	5.0									-			
R59	12	30.0												
R99	19	47.5												
R48	19	47.5	-	-	-	-	-	-		-	-		-	-

- indicates an extreme low value, while + indicates an extreme high value. The range used is (Q1 - 1.5*IQR, Q3 + 1.5*IQR).

a. Cases and variables are sorted on missing patterns.

R59, 99 and 48 will be deleted because their missing percentage is too high.

Univariate Statistics

	N	Mean	Std. Deviation	Missing		No. of Extremes ^a	
				Count	Percent	Low	High
TeamCQ1	179	5.87	1.083	0	.0	1	0
TeamCQ2	179	5.77	1.071	0	.0	8	0
TeamCQ3	179	5.94	1.032	0	.0	17	0
TeamCQ4	179	5.49	1.313	0	.0	14	0
TeamCQ5	179	5.35	1.118	0	.0	13	0
TeamCQ6	179	5.71	.962	0	.0	6	0
TeamCQ7	179	6.13	.877	0	.0	11	0
TeamCQ8	179	5.35	1.282	0	.0	13	0
TeamCQ9	179	6.18	1.039	0	.0	10	0
TeamCQ10	179	5.60	1.234	0	.0	13	0
TeamCQ11	179	6.26	.985	0	.0	9	0
TeamCQ12	179	6.18	.963	0	.0	12	0
TeamCQ14	179	5.84	.911	0	.0	3	0
TeamCQ15	179	5.75	1.031	0	.0	3	0
TeamCQ16	179	6.15	.939	0	.0	10	0
TeamCQ17	179	5.96	1.041	0	.0	14	0
TeamCQ18	179	6.02	.915	0	.0	12	0
TeamCQ19	179	5.87	1.062	0	.0	3	0
TeamCQ20	179	5.62	1.117	0	.0	9	0
TeamCQ21	179	5.73	1.188	0	.0	5	0
Creative1	179	5.75	.993	0	.0	5	0
Creative2	179	5.80	.949	0	.0	5	0

Language1	179	5.69	1.067	0	.0	5	0
Language2	179	5.71	1.119	0	.0	1	0
Language3	179	5.95	.967	0	.0	17	0
Language4	179	6.11	.915	0	.0	14	0
Language5	179	5.75	1.021	0	.0	3	0
Leadership1	179	4.12	.940	0	.0	12	0
Leadership2	179	4.08	.864	0	.0	8	0
Leadership3	179	3.99	.880	0	.0	0	0
Leadership4	179	4.28	.802	0	.0	5	0
Leadership5	179	4.18	.939	0	.0	11	0
Trust1	179	6.22	.920	0	.0	10	0
Trust2	179	5.89	.980	0	.0	2	0
Trust3	179	6.11	.974	0	.0	14	0
Trust4	179	6.25	.806	0	.0	8	0
Trust5	179	6.14	.853	0	.0	10	0
ReTeamCQ13	179	4.61	1.964	0	.0	0	0
ReAge	170	34.88	9.963	9	5.0	0	8
N_Gender	169			10	5.6		

a. Number of cases outside the range ($Q1 - 1.5 \cdot IQR$, $Q3 + 1.5 \cdot IQR$).

SPSS missing value analysis: < 10% missing data (see column 6) for all variables: the extent is in principal no problem (Field, 2017). We do have to diagnose the randomness of the missing data.

EM Estimated Statistics

TeamCQ1	TeamCQ2	TeamCQ3	TeamCQ4	TeamCQ5	TeamCQ6	TeamCQ7	TeamCQ8	TeamCQ9	TeamCQ10	TeamCQ11	TeamCQ12	TeamCQ14	TeamCQ15	TeamCQ16
5.86	5.76	5.94	5.50	5.34	5.70	6.13	5.35	6.17	5.59	6.26	6.18	5.84	5.75	6.15

a. Little's MCAR test: Chi-Square = 53.080, DF = 38, Sig. = .053

EM Means ^a														
TeamCQ17	TeamCQ18	TeamCQ19	TeamCQ20	TeamCQ21	Creative1	Creative2	Language1	Language2	Language3	Language4	Language5	Leadership1	Leadership2	Leadership3
5.96	6.01	5.86	5.61	5.72	5.74	5.81	5.70	5.71	5.96	6.11	5.76	4.12	4.07	3.98

Leadership4	Leadership5	Trust1	Trust2	Trust3	Trust4	Trust5	ReTeamCQ13	ReAge
4.28	4.18	6.21	5.89	6.10	6.25	6.13	4.60	34.92

EM Means: The result shows that MCAR test is not significant (p value = 0.053). Basically, non-significant MCAR Test indicates that we have the randomness of missing value process. It means our data is completely missing at random.

3. Harman single factor test

We use Harman's single factor score in which all items (measuring latent variables) will be loaded into one common factor to test if CMB appears in this research.

Analyze – Dimension reduction – Factor Analysis – Principal Axis Factoring – Fix one factor to extract. A single factor is extracting 32.5% of total variance. It is far less than 50%. It is concluded that there is no threat of common bias method.

Total Variance Explained						
Factor	Total	Initial Eigenvalues		Extraction Sums of Squared Loadings		
		% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	12.975	34.145	34.145	12.368	32.549	32.549
2	3.901	10.266	44.412			
3	1.994	5.246	49.658			
4	1.699	4.472	54.130			
5	1.553	4.087	58.217			
6	1.489	3.917	62.135			
7	1.343	3.534	65.669			
8	1.141	3.003	68.671			
9	1.002	2.636	71.307			
10	.953	2.508	73.815			
11	.818	2.152	75.968			
12	.766	2.016	77.984			
13	.676	1.780	79.763			
14	.613	1.613	81.376			
15	.596	1.567	82.944			
16	.559	1.471	84.415			
17	.534	1.404	85.819			
18	.465	1.223	87.042			
19	.429	1.130	88.172			

20	.420	1.106	89.279			
21	.391	1.029	90.308			
22	.387	1.018	91.326			
23	.339	.892	92.218			
24	.330	.869	93.087			
25	.292	.768	93.855			
26	.279	.735	94.590			
27	.262	.689	95.279			
28	.245	.644	95.923			
29	.230	.605	96.529			
30	.209	.550	97.079			
31	.195	.513	97.592			
32	.183	.481	98.072			
33	.162	.427	98.500			
34	.152	.400	98.900			
35	.134	.353	99.253			
36	.129	.339	99.591			
37	.107	.281	99.873			
38	.048	.127	100.000			

Extraction Method: Principal Axis Factoring.

Appendix 8 – Cronbach's Alpha

Cronbach's Alpha is performed to measure internal reliability of data and remove garbage items if the overall reliability can be improved. Running Cronbach's Alpha before EFA can help to identify garbage items which can create artificial factors in EFA. Factor analysis process can create factors. Therefore, Hair et al. (2019) advised not to include many variables and expect factor analysis will figure it out because by doing so, the possibility of poor results is very high. "The quality and meaning of the derived factors reflect the conceptual underpinnings of the variables included in the analysis" (Hair et al., p.97, 2019).

1. Team CQ

The first important table is the Reliability Statistics table that provides the actual value for Cronbach's Alpha, as shown below. Cronbach's Alpha is 0.918, which indicates a high level of internal consistency for Team CQ scale with this specific sample.

Reliability Statistics	
Cronbach's Alpha	N of Items
.918	21

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Team CQ 1	115.31	195.684	.666	.912
Team CQ 2	115.41	195.281	.689	.912
Team CQ 3	115.21	199.393	.602	.914
Team CQ 4	115.67	193.073	.619	.913
Team CQ 5	115.80	200.878	.498	.916
Team CQ 6	115.46	197.575	.678	.912
Team CQ 7	115.02	201.447	.641	.913
Team CQ 8	115.82	200.923	.415	.918
Team CQ 9	114.99	200.144	.563	.914
Team CQ 10	115.55	193.277	.679	.912
Team CQ 11	114.92	197.269	.667	.912
Team CQ 12	114.97	197.662	.714	.912
Team CQ 14	115.30	202.464	.573	.914
Team CQ 15	115.42	198.388	.608	.913
Team CQ 16	114.99	200.492	.633	.913
Team CQ 17	115.19	195.361	.741	.911
Team CQ 18	115.13	199.242	.704	.912
Team CQ 19	115.29	196.020	.708	.911
Team CQ 20	115.52	196.439	.654	.912
Team CQ 21	115.43	194.667	.650	.912
Recode TeamCQ 13	116.57	215.518	-.023	.938

All of the values in the column “Corrected Items – Total Correction” should be above 0.3. Item “Recoded Team CQ 13” is a reverse scoring item and it has been reverse-scored but it has a negative factor loading (-0.023), smaller than 0.3. We decide to delete this item and run Cronbach’s Alpha again.

Reliability Statistics	
Cronbach's Alpha	N of Items
.938	20

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Team CQ 1	110.73	193.062	.672	.934
Team CQ 2	110.82	192.378	.705	.933
Team CQ 3	110.63	197.285	.589	.935
Team CQ 4	111.09	190.158	.633	.935
Team CQ 5	111.22	197.322	.533	.937
Team CQ 6	110.87	194.807	.690	.934
Team CQ 7	110.44	199.110	.635	.935
Team CQ 8	111.24	197.894	.430	.939
Team CQ 9	110.41	197.900	.555	.936
Team CQ 10	110.97	190.772	.681	.934
Team CQ 11	110.34	195.031	.660	.934
Team CQ 12	110.39	195.786	.692	.934
Team CQ 14	110.71	199.830	.580	.936
Team CQ 15	110.84	195.840	.611	.935
Team CQ 16	110.41	198.155	.628	.935
Team CQ 17	110.61	192.902	.741	.933
Team CQ 18	110.55	196.735	.706	.934
Team CQ 19	110.71	193.147	.723	.933
Team CQ 20	110.94	193.361	.675	.934
Team CQ 21	110.85	191.376	.677	.934

All items are fine except Team CQ8. Team CQ8 is 0.939 higher than the overall reliability of 0.938. But its “Corrected Items – Total Correction” is 0.4, greater than 0.3. If we delete it, the overall reliability can be improved just 0.001. We decide to keep it because the change is too small and also the reliability of Cronbach’s Alpha is already very good at 0.938. A small improvement is not so important. We would like to keep more variables in this research to explain for the construct to ensure content validity because this criterion is more important.

2. Team Creativity

Reliability Statistics

Cronbach's Alpha	N of Items
.710	2

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Creativity 1	5.80	.898	.551	.
Creativity 2	5.74	.985	.551	.

Team Creativity meets the rules of thumb. Cronbach's Alpha is 0.710, which indicates a good level of internal consistency. All items in Total Correlation are higher than 0.3.

3. Language proficiency

Reliability Statistics

Cronbach's Alpha	N of Items
.952	5

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Language 1	23.49	13.670	.894	.936
Language 2	23.47	13.580	.852	.944
Language 3	23.22	14.811	.826	.947
Language 4	23.07	15.046	.846	.945
Language 5	23.42	13.798	.931	.929

Language proficiency meets the rules of thumb. Cronbach's Alpha is 0.952, which indicates a very good level of internal consistency. All items in Total Correlation are higher than 0.3. All of items are lower than the overall reliability (0.952), so none of the items will increase the reliability if they are removed. This means all items are positively contributing to the overall reliability.

4. Team trust

Reliability Statistics

Cronbach's Alpha	N of Items
.714	5

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Trust 1	24.39	6.307	.539	.638
Trust 2	24.72	8.373	.055	.828

Trust 3	24.50	6.353	.477	.665
Trust 4	24.36	6.040	.745	.564
Trust 5	24.47	5.992	.700	.576

Cronbach's Alpha is 0.714, which indicates a good level of internal consistency. All items in Total Correlation are higher than 0.3 except item "Trust 2" which is quite low at 0.055. Also, if this item is deleted, the overall reliability can be improved from 0.714 to 0.828. We decide to delete this item and run Cronbach's Alpha again.

Reliability Statistics

Cronbach's Alpha	N of Items
.828	4

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Trust 1	18.50	5.060	.596	.810
Trust 3	18.61	5.037	.546	.838
Trust 4	18.46	4.958	.770	.737
Trust 5	18.58	4.864	.739	.746

All items are above 0.3 except Trust 3. Trust 3 is 0.838 higher than the overall reliability of 0.828. If I delete it, the overall reliability can be improved 0.01. We decide to keep it because the change is too small and also the reliability of Cronbach's Alpha is already very good at 0.828. A small improvement is not so vital. We would like to keep more variables in my research to explain for the construct to ensure content validity as this criterion is more important.

5. Transformational leadership

Reliability Statistics

Cronbach's Alpha	N of Items
.860	5

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Leadership 1	16.54	7.879	.726	.818
Leadership 2	16.58	8.840	.586	.853
Leadership 3	16.67	8.211	.716	.821
Leadership 4	16.37	8.640	.703	.826
Leadership 5	16.47	8.150	.665	.835

Transformational leadership meets the rules of thumb. Cronbach's alpha is 0.860, which indicates a good level of internal consistency. All items in Total Correlation are higher than 0.3. All of items are lower than the overall reliability (0.860).

Appendix 9 – Exploratory Factor Analysis

Team CQ

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.920
Bartlett's Test of Sphericity	Approx. Chi-Square	2137.277
	df	190
	Sig.	.000

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	9.260	46.300	46.300	9.260	46.300	46.300	4.930	24.648	24.648
2	1.601	8.004	54.303	1.601	8.004	54.303	3.705	18.523	43.171
3	1.305	6.526	60.829	1.305	6.526	60.829	3.532	17.658	60.829
4	1.048	5.238	66.068						
5	.837	4.186	70.254						
6	.757	3.787	74.040						
7	.624	3.119	77.160						
8	.589	2.946	80.106						
9	.570	2.851	82.957						
10	.484	2.420	85.377						
11	.472	2.358	87.735						
12	.417	2.087	89.821						
13	.332	1.658	91.480						
14	.326	1.628	93.108						
15	.295	1.477	94.585						
16	.271	1.355	95.940						
17	.245	1.227	97.167						
18	.219	1.093	98.260						
19	.181	.907	99.167						

20	.167	.833	100.000						
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Extraction Method: Principal Component Analysis.

Rotated Component Matrix^a

	Component		
	1	2	3
Team CQ 20	.787		
Team CQ 17	.735		
Team CQ 18	.728		
Team CQ 21	.726		
Team CQ 19	.717		
Team CQ 16	.683		
Team CQ 15	.641		
Team CQ 14	.558		
Team CQ 12	.524		
Team CQ 5		.736	
Team CQ 6		.736	
Team CQ 2		.719	
Team CQ 1		.693	
Team CQ 4		.677	
Team CQ 8		.511	
Team CQ 9			.779
Team CQ 7			.724
Team CQ 11			.679
Team CQ 3			.557
Team CQ 10			.555

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser

Normalization.^a

a. Rotation converged in 6 iterations.

Component Transformation Matrix

Component	1	2	3
1	.667	.525	.528
2	-.529	.833	-.161
3	-.524	-.172	.834

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

There are 3 factors to be extracted.

Team Openness to diversity (Team OD): Team CQ 12, 14, 15, 16, 17, 18, 19, 20, 21; Team cultural metacognition (TCM): Team CQ 1, 2, 4, 5, 6, 8. Team coexistence and meaningful participation (FT): Team CQ 3, 7, 9, 10, 11.

We run the reliability test again for each construct separately to check if the factor structure is still valid.

Team CQ FT

The result shows that all criteria are met.

Reliability Statistics

Cronbach's Alpha	N of Items
.826	5

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Team CQ 3	24.17	11.166	.539	.815
Team CQ 7	23.98	11.219	.674	.782
Team CQ 9	23.94	10.687	.615	.794
Team CQ 10	24.52	9.442	.657	.785
Team CQ 11	23.85	10.732	.658	.782

Team CQ TCM

Reliability Statistics

Cronbach's Alpha	N of Items
.834	6

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Team CQ 1	27.66	18.271	.684	.792
Team CQ 2	27.76	18.217	.702	.789
Team CQ 4	28.03	17.111	.639	.801
Team CQ 5	28.18	18.856	.584	.812
Team CQ 6	27.82	18.983	.700	.793
Team CQ 8	28.18	19.541	.405	.852

The value of Team CQ 8 in “Corrected Item – Total correlation” is $0.405 > 0.3$. Cronbach’s Alpha if Item deleted shows that if I remove Team CQ 8, the reliability can be improved from 0.834 to 0.852. I decide not to remove it because the change is too small and also the

reliability of Cronbach's Alpha is already very good at 0.834. A small improvement is not very necessary. We would like to keep more variables in this research to explain for the construct to ensure content validity because this criterion is more important.

Team CQ OD

The result shows all criteria are met.

Reliability Statistics

Cronbach's Alpha	N of Items
.915	9

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Team CQ 12	46.94	41.356	.661	.909
Team CQ 14	47.28	42.317	.617	.911
Team CQ 15	47.37	41.303	.611	.912
Team CQ 16	46.98	41.191	.696	.906
Team CQ 17	47.17	39.163	.784	.900
Team CQ 18	47.11	40.448	.789	.901
Team CQ 19	47.26	39.105	.770	.901
Team CQ 20	47.51	38.723	.754	.902
Team CQ 21	47.40	39.027	.675	.909

Team Creativity

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.500
Bartlett's Test of Sphericity	Approx. Chi-Square
	df
	Sig.
	63.490
	1
	.000

Total Variance Explained

Component	Total	Initial Eigenvalues		Extraction Sums of Squared Loadings		
		% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	1.550	77.483	77.483	1.550	77.483	77.483
2	.450	22.517	100.000			

Extraction Method: Principal Component Analysis.

All factor loadings are greater than 0.5.

Component Matrix^a

Component

	1
Creativity 2	.880
Creativity 1	.880

Extraction Method: PCA

a. 1 components extracted.

Rotated Component Matrix^a

a. Only one component was extracted. The solution cannot be rotated.

Language Proficiency

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.858
Bartlett's Test of Sphericity	Approx. Chi-Square	1015.332
	df	10
	Sig.	.000

Total Variance Explained

Component	Total	Initial Eigenvalues		Extraction Sums of Squared Loadings		
		% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.206	84.123	84.123	4.206	84.123	84.123
2	.357	7.130	91.254			
3	.233	4.653	95.906			
4	.143	2.863	98.770			
5	.062	1.230	100.000			

Extraction Method: Principal Component Analysis.

Component Matrix^a

Component
1

Language 5	.958
Language 1	.932
Language 2	.904
Language 4	.901
Language 3	.889

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Rotated Component Matrix^a

a. Only one component was extracted. The solution cannot be rotated.

Transformational Leadership

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.825
Bartlett's Test of Sphericity	Approx. Chi-Square	395.931
	df	10
	Sig.	.000

Total Variance Explained

Component	Total	Initial Eigenvalues		Extraction Sums of Squared Loadings		
		% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.220	64.404	64.404	3.220	64.404	64.404
2	.627	12.537	76.941			
3	.515	10.302	87.243			
4	.350	6.995	94.238			
5	.288	5.762	100.000			

Extraction Method: Principal Component Analysis.

Component Matrix^a

Component	
1	
Leadership 1	.841
Leadership 3	.832
Leadership 4	.823
Leadership 5	.790
Leadership 2	.721

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Rotated Component Matrix^a

a. Only one component was extracted. The solution cannot be rotated.

Team Trust

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.779
Bartlett's Test of Sphericity	Approx. Chi-Square	296.961
	df	6
	Sig.	.000

Communalities

	Initial	Extraction
Trust 1	1.000	.609
Trust 3	1.000	.532
Trust 4	1.000	.791

Trust 5	1.000	.760
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Extraction Method: PCA.

Total Variance Explained						
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.692	67.299	67.299	2.692	67.299	67.299
2	.660	16.496	83.795			
3	.356	8.911	92.706			
4	.292	7.294	100.000			

Extraction Method: Principal Component Analysis.

Component Matrix^a

Component	
1	
Trust 4	.889
Trust 5	.872
Trust 1	.780
Trust 3	.729

Extraction Method: PCA

a. 1 components extracted.

Rotated Component Matrix^a

a. Only one component was extracted. The solution cannot be rotated.

Appendix 10 – Pearson Correlation

After EFA, Team CQ shows that there are 3 factors including CQ OD, CQ FT and CQ TCM. As part of doing a multiple regression analysis, we would like to test if there are any correlations among these three variables in the regression model.

		Correlations			
Mean Creativity	Pearson Correlation	Mean Creativity	Mean CQOD	Mean CQFT	MeanTCM
		1	.468**	.428**	.397**
	Sig. (2-tailed)		.000	.000	.000

	N	179	179	179	179
Mean CQOD	Pearson Correlation	.468**	1	.700**	.630**
	Sig. (2-tailed)	.000		.000	.000
	N	179	179	179	179
Mean CQFT	Pearson Correlation	.428**	.700**	1	.621**
	Sig. (2-tailed)	.000	.000		.000
	N	179	179	179	179
Mean TCM	Pearson Correlation	.397**	.630**	.621**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	179	179	179	179

**. Correlation is significant at the 0.01 level (2-tailed).

From the output, there is a correlation between Mean Creativity and Mean OD, Mean FT and Mean TCM ($p < 0.01$). Their correlations with team creativity are moderate ($r = .468$, $r = .428$ and $r = .397$).

Mean OD, Mean FT and Mean TCM are correlated with each other ($\text{sig} < 0.01$). Their correlations are strong because $r > 0.5$ and it can cause multicollinearity. We decide not to run regression with these three means but use Team CQ Total (also called CQ Total in all the output tables).

		Correlations								
		Mean Creativity	NGender2	Recode Age	Mean CQOD	Mean CQFT	Mean TCM	Mean Language	Mean Leadership	Mean Trust
Mean Creativity	Pearson Correlation	1	-.020	-.036	.468**	.428**	.397**	.097	.354**	.445**
	Sig. (2-tailed)		.793	.646	.000	.000	.000	.196	.000	.000
	N	179	179	170	179	179	179	179	179	179
NGender2	Pearson Correlation	-.020	1	.052	-.088	.059	.012	.154*	-.038	.082
	Sig. (2-tailed)	.793		.503	.240	.432	.875	.040	.613	.274
	N	179	179	170	179	179	179	179	179	179
Recode Age	Pearson Correlation	-.036	.052	1	-.041	-.023	-.062	-.223**	.065	.032
	Sig. (2-tailed)	.646	.503		.599	.762	.418	.004	.401	.679
	N	170	170	170	170	170	170	170	170	170

Mean CQOD	Pearson Correlation	.468**	-.088	-.041	1	.700*	.630*	.272**	.585**	.600*
	Sig. (2-tailed)	.000	.240	.599		.000	.000	.000	.000	.000
	N	179	179	170	179	179	179	179	179	179
Mean CQFT	Pearson Correlation	.428**	.059	-.023	.700**	1	.621*	.245**	.550**	.568*
	Sig. (2-tailed)	.000	.432	.762	.000		.000	.001	.000	.000
	N	179	179	170	179	179	179	179	179	179
Mean TCM	Pearson Correlation	.397**	.012	-.062	.630**	.621*	1	.141	.482**	.443*
	Sig. (2-tailed)	.000	.875	.418	.000	.000		.059	.000	.000
	N	179	179	170	179	179	179	179	179	179
Mean Language	Pearson Correlation	.097	.154*	-.223*	.272**	.245*	.141	1	.282**	.206*
	Sig. (2-tailed)	.196	.040	.004	.000	.001	.059		.000	.006
	N	179	179	170	179	179	179	179	179	179
Mean Leadership	Pearson Correlation	.354**	-.038	.065	.585**	.550*	.482*	.282**	1	.504*
	Sig. (2-tailed)	.000	.613	.401	.000	.000	.000	.000		.000
	N	179	179	170	179	179	179	179	179	179
Mean Trust	Pearson Correlation	.445**	.082	.032	.600**	.568*	.443*	.206**	.504**	1
	Sig. (2-tailed)	.000	.274	.679	.000	.000	.000	.006	.000	
	N	179	179	170	179	179	179	179	179	179

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

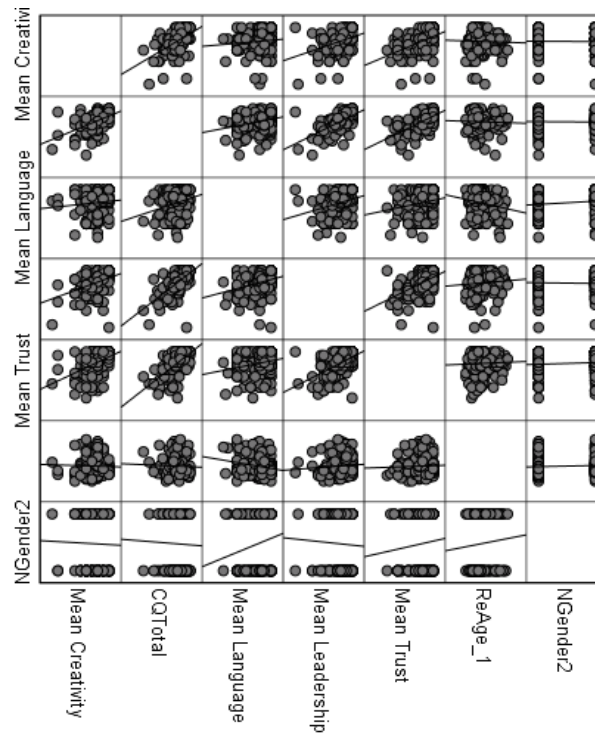
Mean Creativity is statistically significant to all of variables ($p < 0.001$) except Gender, Age and Language. Its statistical significance indicates that there is a linear relationship between Mean Creativity and Mean OD, FT, TCM, Trust and Leadership. Pairs of variables in red have a statistically significant linear relationship ($r > 0.4$, $p < 0.001$). The direction of the relationship is positively correlated, meaning that these variables tend to increase together.

Appendix 11 – Assumptions of Multiple regression analysis

Assumptions

- Linearity of the residuals

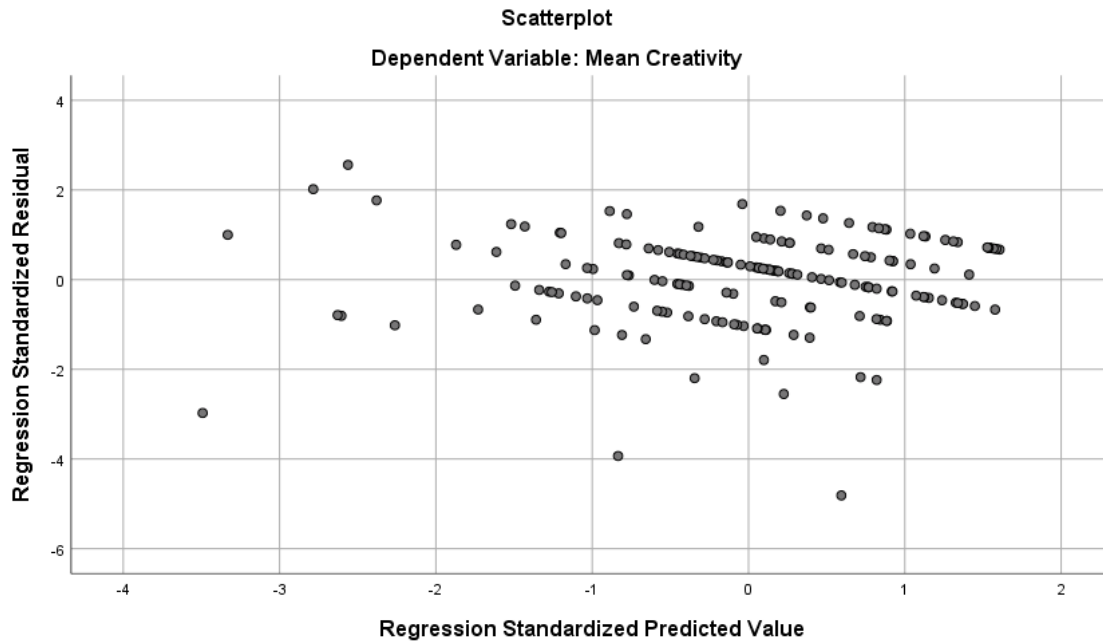
Graph – Legacy Dialogs - Scatter/Plot – Matrix Scatter



We see some kind of linearity in most of the data, so our first assumption is met.

- Equal/Constant variance of the residuals

It is assumed that the error of a regression model is homoscedastic across all values of the predicted value of the dependent variable. We see that the scatterplot shows a linear negative effect, which concludes the assumption of a linear relationship. Besides, the points in this scatterplot do not form a funnel. The points do not become more spread out across the graph. The funnel shape is a typical form of heteroscedasticity which means increasing variance across the residuals (Field, 2017). The observed values of these variables are fairly evenly distributed. The assumption of homoscedasticity is satisfied.



- Independence of the residuals

The Durbin- Watson statistics can range from 0 to 4 and a value of 2 can indicate that there is no correlation between the residuals, zero autocorrelation (Field, 2017). In other words, our Durbin-Watson is at 1.960, almost 2 and it means that our data meets this criterion because there is no independence of residuals.

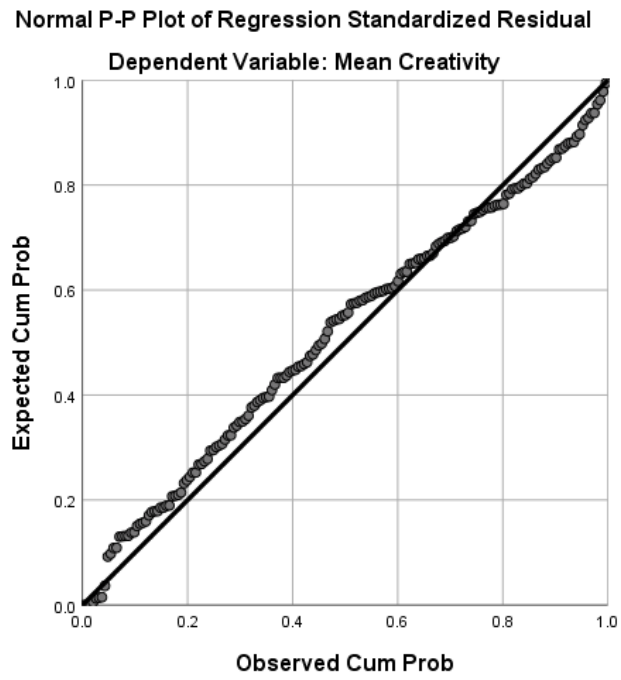
Model Summary^b					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.531 ^a	.282	.257	.73689	1.960

a. Predictors: (Constant), Mean Trust, ReAge_1, NGender2, Mean Language , Mean Leadership, CQTotal

b. Dependent Variable: Mean Creativity

- Normality of the residuals' distribution

The best test for normally distributed errors is a normal probability plot. If the dots fall on the diagonal line, the data is normally distributed. If there are more than one predictor in the model, there should be no perfect linear relationship (Field, 2017). We have more than one predictor. Our residuals are more or less on the line, so it is normally distributed. We meet this assumption as Field (2017) mentioned.



Appendix 12 –Multiple regression analysis- Hypothesis 1

Model 1: Hypothesis 1: Team cultural intelligence is positively associated with team creativity in global virtual teams.

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.496 ^a	.246	.233	.74873	1.967

a. Predictors: (Constant), NGender2, CQTotal, ReAge_1

b. Dependent Variable: Mean Creativity

The first table of interest is the model summary. This table is used to determine how well a regression model fits the data. From the model summary, we can see that the explanatory power of this model is quite moderate, since the adjusted R^2 has a value of .233. This means that 23.3% of the variance in our dependent variable Team Creativity is explained by the entered predictors in the model.

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	31.956	3	10.652	19.001	.000 ^b
	Residual	98.106	175	.561		
	Total	130.061	178			

a. Dependent Variable: Mean Creativity

b. Predictors: (Constant), NGender2, CQTotal, ReAge_1

95% confidence interval or 5% level of the significance level is chosen for this study. Thus, the p-value should be less than 0.05. In the above table, it is .000. Therefore, the result is significant, $F(3,175) = 19.001$, $p < .001$. To see which independent variable is significant, we check the coefficients table.

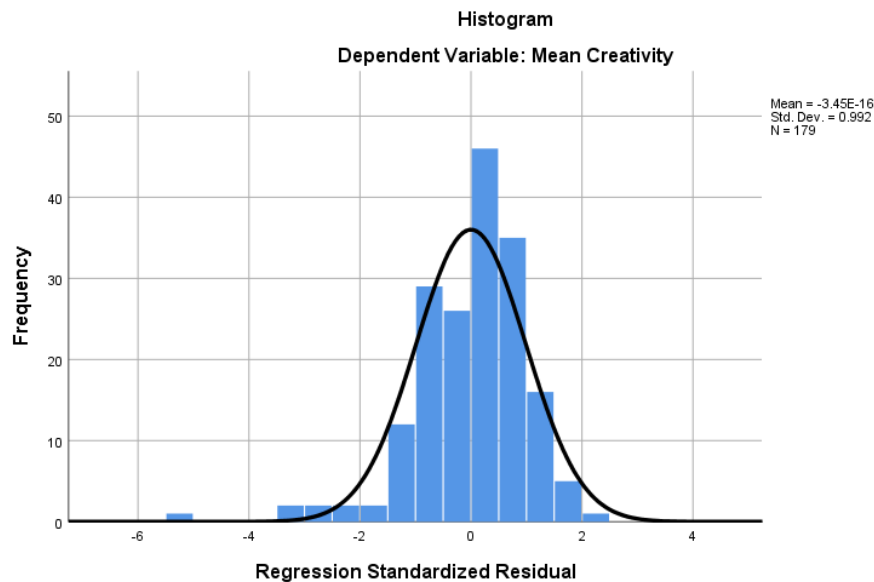
Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	2.351	.515		4.565	.000		
	CQTotal	.594	.079	.495	7.529	.000	.998	1.002
	ReAge_1	-.001	.006	-.013	-.194	.846	.995	1.005
	NGender2	-.013	.112	-.007	-.113	.910	.995	1.005

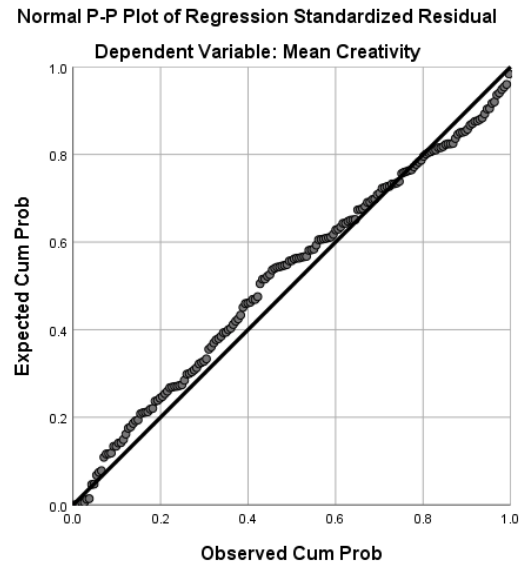
a. Dependent Variable: Mean Creativity

In the coefficient table, we see that only Team CQ Total has a significant and positive effect on Team Creativity, ($b=.594$, $\text{sig}<0.05$). The greater the Team CQ Total, the higher the team creativity. Thus, higher level of team CQ Total is associated with higher team creativity. A one standard deviation increase in Team CQ Total, in turn, leads to a 0.495 standard deviation increase Team Creativity with the other variables in the model held constant.

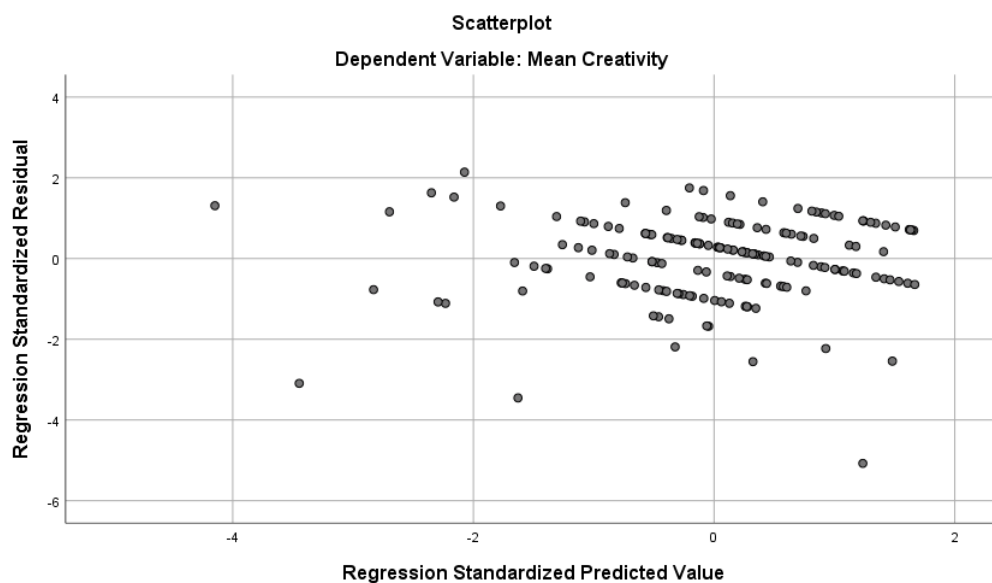
Other variables are not significant, it means they are not influencers of Team Creativity. In addition, we check for multicollinearity, which means a potential strong correlation between the independent variables. We see that the variable Team CQ Total has a VIF <2 , and therefore indicates no multicollinearity.



Our mean is almost 0 and SD is almost 1. The model has a standard normal distribution. The histogram is symmetrical and approximately bell-shaped.



Looking at the normal P-P Plot, it looks like a diagonal line. We can see that the points are more or less following the line. Although there are some deviations, they generally do appear to fall on this line.



Our pattern is a linear pattern, where the data has a general look of a line going downhill. The scatterplot shows a linear negative effect, which concludes the assumption of a linear relationship. The observed values of these variables are fairly evenly distributed. The assumption of homoscedasticity is satisfied.

Conclusion: Hypothesis 1 is accepted. Team cultural intelligence is positively associated with team creativity in global virtual teams.

Appendix 13 –Multiple regression analysis- Hypothesis 2a

Model 2a – Hypothesis 2a: The level of common language proficiency is positively associated with the level of team creativity in global virtual teams.

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.104 ^a	.011	-.006	.85744	1.814

a. Predictors: (Constant), Mean Language , NGender2, ReAge_1

b. Dependent Variable: Mean Creativity

From the model summary we can see that the explanatory power of this model is negative, since the adjusted R^2 has a value of -.006. Negative adjusted R^2 means insignificance of explanatory variables. In other words, the model is not explained by the entered predictors. This is a worse fit model.

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.401	3	.467	.635	.593 ^b
	Residual	128.660	175	.735		
	Total	130.061	178			

a. Dependent Variable: Mean Creativity

b. Predictors: (Constant), Mean Language , NGender2, ReAge_1

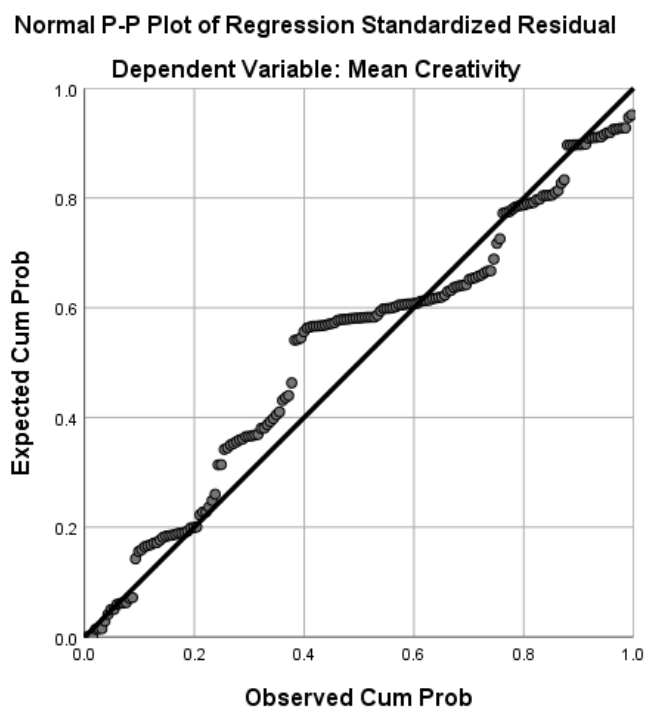
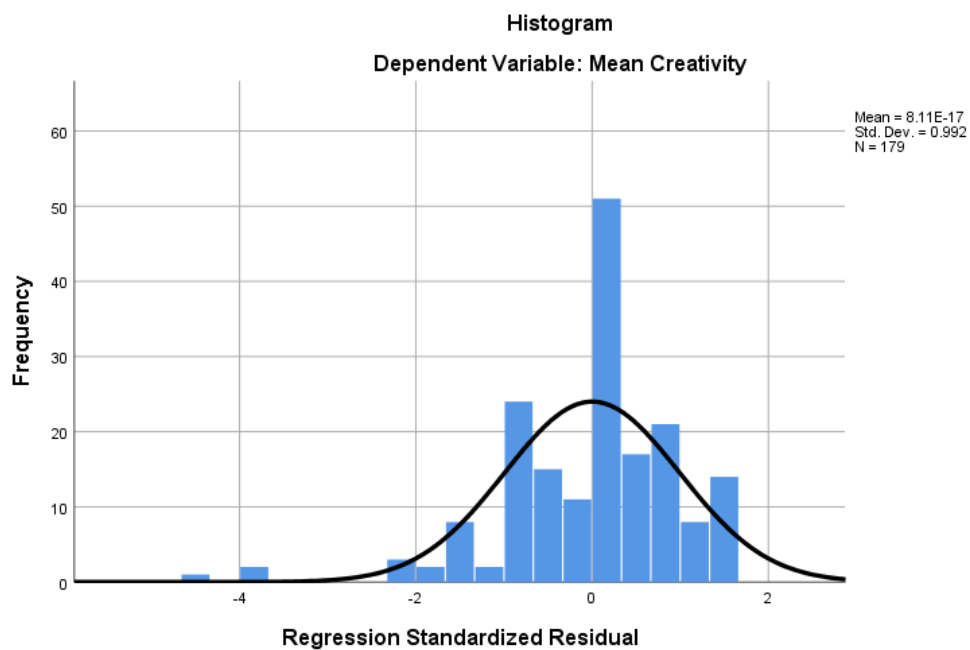
From the ANOVA table we see that our model is not significant, $F(3,175) = .635$, $p > 0.05$.

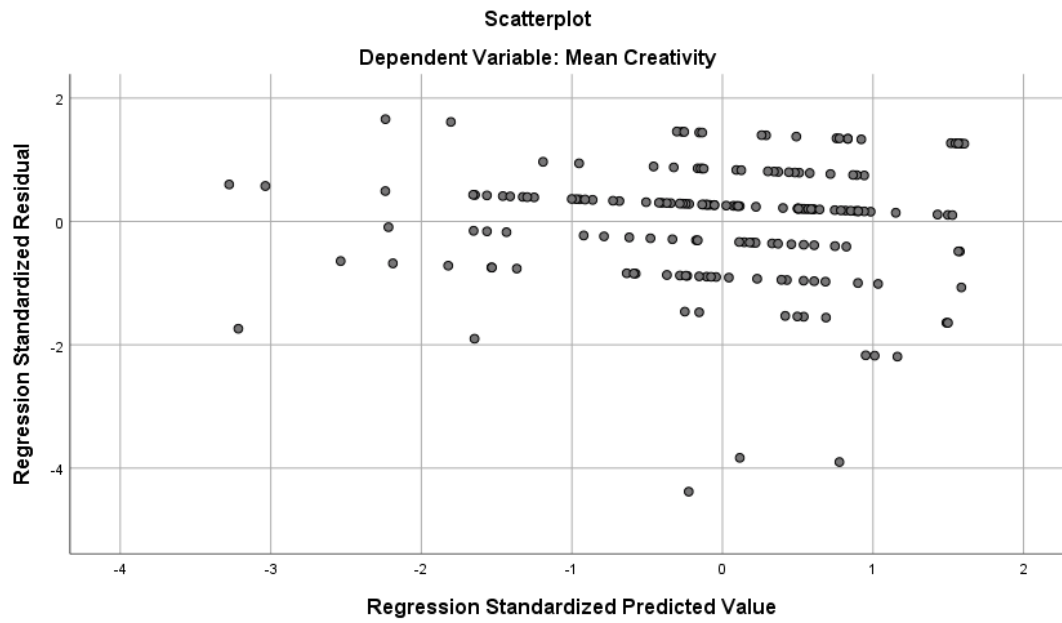
Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error				Tolerance	VIF
1	(Constant)	5.298	.516		10.269	.000		
	NGender2	-.059	.131	-.035	-.452	.652	.967	1.034
	ReAge_1	-.001	.007	-.010	-.130	.896	.952	1.051
	Mean Language	.092	.071	.101	1.291	.198	.933	1.072

a. Dependent Variable: Mean Creativity

In the coefficient table, we see that all of variables are not significant with $p > 0.05$. It means they are not influencers of Team Creativity.





Hypothesis 2a is not accepted. The level of common language proficiency is not associated with the level of team creativity in global virtual teams.

Appendix 14 –Multiple regression analysis- Hypothesis 2b

Model 2b - Hypothesis 2b: The level of team trust is positively associated with the level of team creativity in global virtual teams.

This model has a R^2 and positive effect on Team Creativity, ($b=.534$, $\text{sig}<0.05$). Thus, the higher level of team trust is associated with higher team creativity. Team Trust has a VIF <2 , and therefore indicates no multicollinearity. The model is standard normal distribution and has no violations.

Conclusion: Hypothesis 2b is accepted. The level of team trust is positively associated with the level of team creativity in global virtual teams.

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.451 ^a	.204	.190	.76928	1.916

a. Predictors: (Constant), Mean Trust, ReAge_1, NGender2

b. Dependent Variable: Mean Creativity

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	26.499	3	8.833	14.926	.000 ^b
	Residual	103.562	175	.592		
	Total	130.061	178			

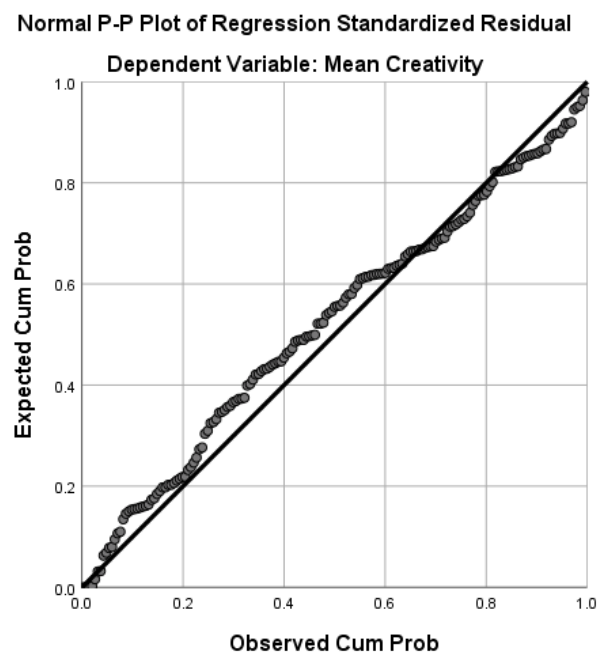
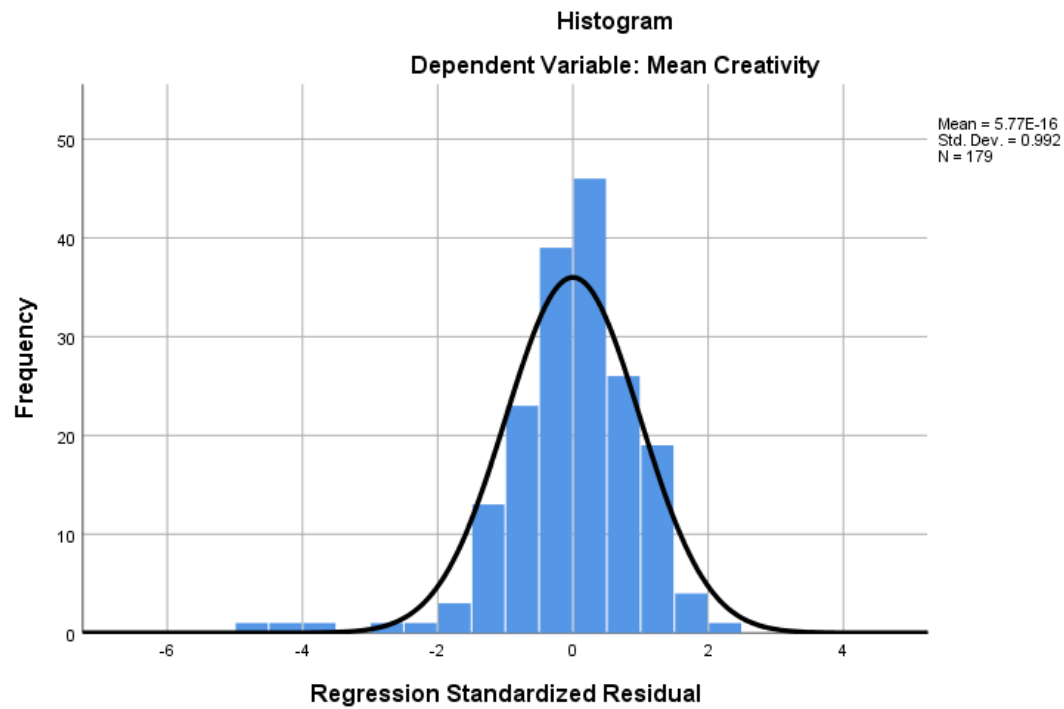
a. Dependent Variable: Mean Creativity

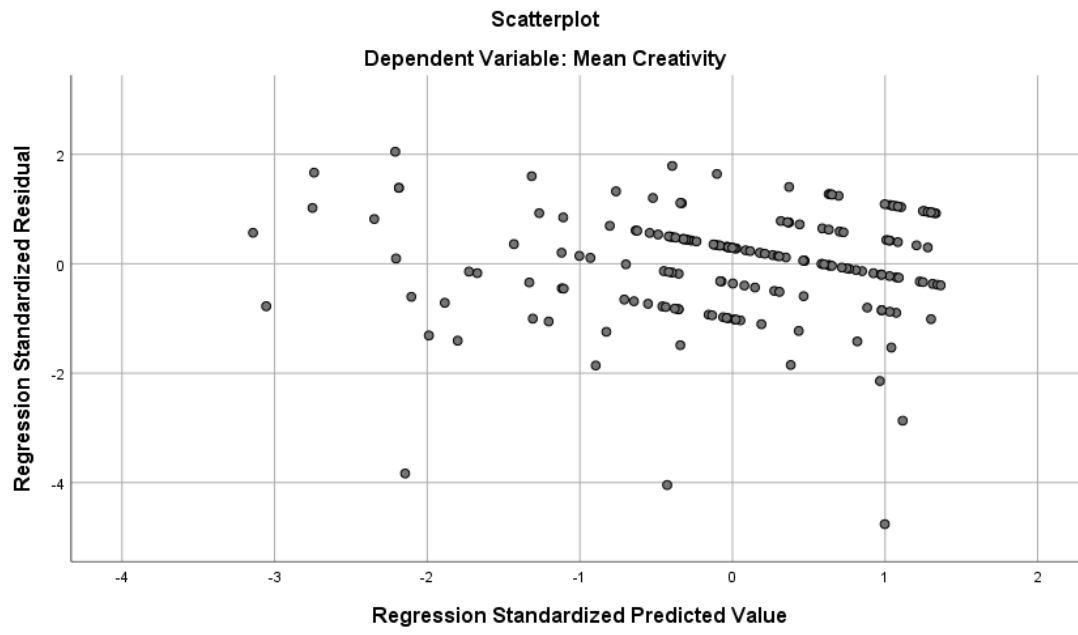
b. Predictors: (Constant), Mean Trust, ReAge_1, NGender2

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	2.665	.530		5.030	.000		
	ReAge_1	-.004	.006	-.047	-.689	.492	.995	1.005
	NGender2	-.092	.116	-.054	-.795	.428	.990	1.011
	Mean Trust	.534	.080	.452	6.669	.000	.992	1.008

a. Dependent Variable: Mean Creativity





Appendix 15 –Multiple regression analysis- Hypothesis 2c

Model 2c- Hypothesis 2c: The level of transformational leadership is positively associated with the level of team creativity in global virtual teams.

This model has a Adjusted R^2 of 0.114. This means that 11.4% of the variance in our dependent variable Team Creativity is explained by the entered predictors in the model. The result is significant, $F(3,175) = 8.659$, $p < .001$. In the coefficient table, we see that Transformational Leadership has a significant and positive effect on Team Creativity, ($b = .432$, $\text{sig} < 0.05$). Thus, the higher level of transformational leadership is associated with higher team creativity. Transformational Leadership has a VIF < 2 , and therefore indicates no multicollinearity. The model is standard normal distribution and has no violations.

Conclusion: Hypothesis 2c is accepted. The level of transformational leadership is positively associated with the level of team creativity in global virtual teams.

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.360 ^a	.129	.114	.80445	1.909

a. Predictors: (Constant), Mean Leadership, NGender2, ReAge_1

b. Dependent Variable: Mean Creativity

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	16.811	3	5.604	8.659	.000 ^b
	Residual	113.250	175	.647		
	Total	130.061	178			

a. Dependent Variable: Mean Creativity

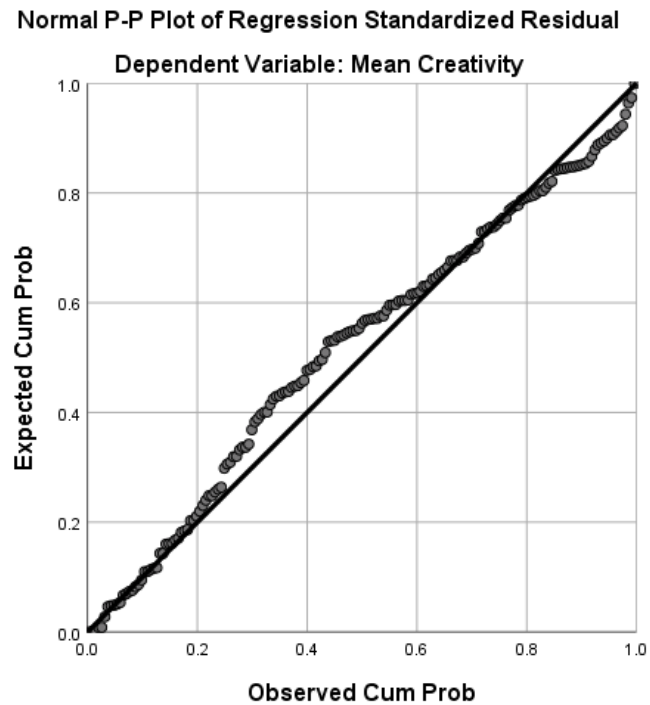
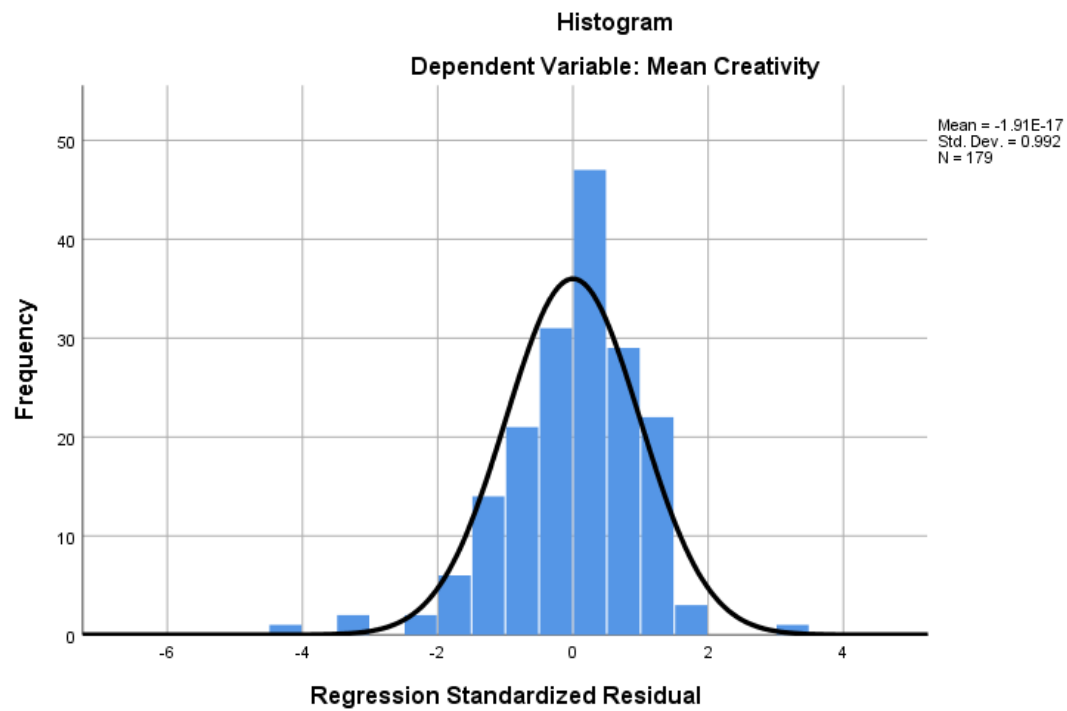
b. Predictors: (Constant), Mean Leadership, NGender2, ReAge_1

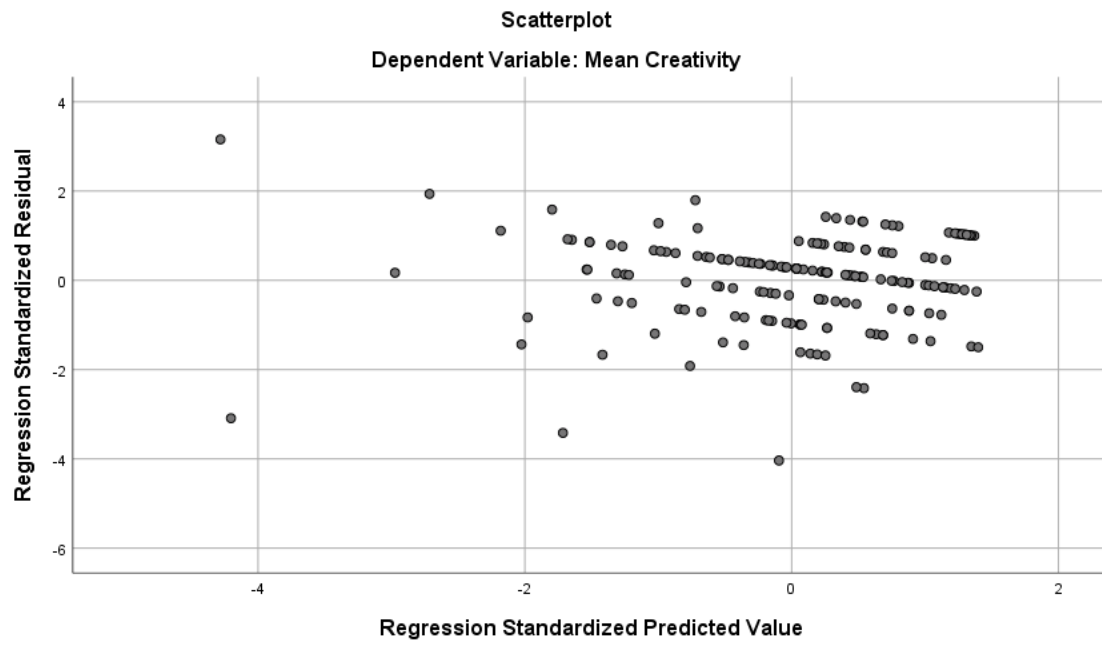
Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	4.177	.407		10.265	.000		
	ReAge_1	-.005	.006	-.061	-.855	.394	.989	1.011
	NGender2	-.004	.121	-.002	-.031	.975	.994	1.006

Mean Leadership	.432	.085	.359	5.070	.000	.992	1.008
-----------------	------	------	------	-------	------	------	-------

a. Dependent Variable: Mean Creativity





Appendix 16 –Multiple regression analysis- Hypothesis 3a

Interaction effect (Int_1): $b = .0968$, $\text{sig} > .05$. The result shows that this interaction effect is not significant because $\text{sig} > .05$. It means that the relationship between Team CQ and Team creativity does not differ for the degree of language proficiency that team members have. Language proficiency does not moderate this relationship.

Hypothesis 3a is not accepted. Common language proficiency does not moderate the relationship between team CQ and team creativity so that the relationship is not more positive in GVTs characterized by higher language proficiency.

Model : 1

Y : M_Creat

X : CQTotal

W : M_Lang

Covariates: NGender2 ReAge_1

Sample Size: 179

OUTCOME VARIABLE:

M_Creat

Model Summary

R	R-sq	MSE	F	df1	df2	p
.5040	.2540	.5609	11.7797	5.0000	173.0000	.0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	5.5403	2.4264	2.2833	.0236	.7511	10.3296
CQTotal	.0576	.4305	.1339	.8936	-.7920	.9073
M_Lang	-.5791	.4275	-1.3546	.1773	-1.4230	.2647
Int_1	.0968	.0748	1.2948	.1971	-.0508	.2445
NGender2	.0072	.1145	.0632	.9497	-.2187	.2332
ReAge_1	-.0012	.0059	-.1958	.8450	-.0128	.0105

Product terms key:

Int_1 : CQTotal x M_Lang

Test(s) of highest order unconditional interaction(s):

	R2-chng	F	df1	df2	p
X*W	.0072	1.6765	1.0000	173.0000	.1971

Focal predict: CQTotal (X) Mod var: M_Lang (W)

Appendix 17 –Multiple regression analysis- Hypothesis 3b

The moderating effect of a variable is represented by the interaction term. If the interaction term is statistically significant, the null hypothesis can be rejected because there is a moderating effect.

Interaction effect (Int_1): $b = .2023$, $\text{sig} < .05$. The result shows that this interaction effect is significant because $\text{sig} < .05$. Its coefficient is $.2023$. Team Trust is a moderator. The positive value of coefficient means that higher team trust can result in stronger effect of Team CQ on Team creativity.

Hypothesis 3b is accepted. Team trust moderates the relationship between team CQ and team creativity so that the relationship is more positive in GVTs characterized by higher team trust.

Model : 1
Y : M_Creat
X : CQTotal
W : M_Trust

Covariates: NGender2 ReAge_1

Sample Size: 179

OUTCOME VARIABLE: M_Creat

Model Summary

R	R-sq	MSE	F	df1	df2	p
.5450	.2971	.5285	14.6230	5.0000	173.0000	.0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	8.3837	3.1672	2.6470	.0089	2.1323	14.6351
CQTotal	-.7743	.5683	-1.3624	.1748	-1.8961	.3475
M_Trust	-.8700	.5451	-1.5960	.1123	-1.9459	.2059
Int_1	.2023	.0948	2.1344	.0342	.0152	.3894
NGender2	-.0364	.1100	-.3305	.7415	-.2535	.1808
ReAge_1	-.0016	.0056	-.2895	.7725	-.0127	.0095

Product terms key:

Int_1 : CQTotal x M_Trust

Test(s) of highest order unconditional interaction(s):

	R2-chng	F	df1	df2	p
X*W	.0185	4.5558	1.0000	173.0000	.0342

Focal predict: CQTotal (X)

Mod var: M_Trust (W)

DATA LIST FREE/

CQTotal M_Trust M_Creat .

BEGIN DATA.

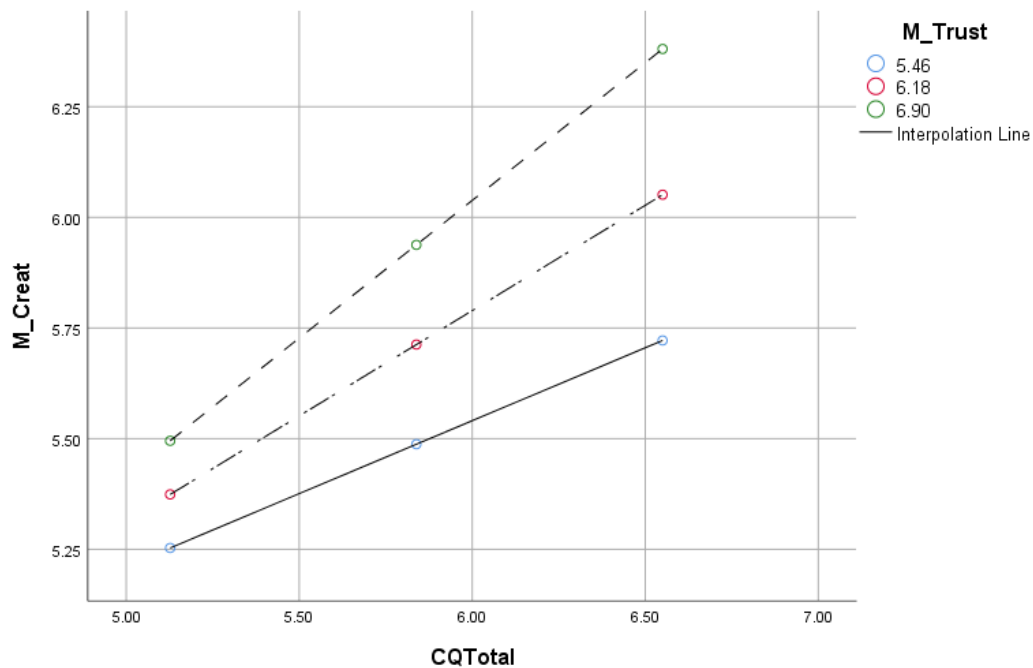
5.1270	5.4553	5.2529
5.8385	5.4553	5.4874
6.5501	5.4553	5.7218
5.1270	6.1788	5.3740
5.8385	6.1788	5.7126
6.5501	6.1788	6.0512
5.1270	6.9022	5.4951
5.8385	6.9022	5.9379
6.5501	6.9022	6.3806

END DATA.

GRAPH/SCATTERPLOT=

CQTotal WITH M_Creat BY M_Trust .

Level of confidence for all confidence intervals in output: 95.0000



Appendix 18 –Multiple regression analysis- Hypothesis 3c

Hypothesis 3c is not accepted. Transformational leadership does not moderate the relationship between team CQ and team creativity so that the relationship is not more positive in GVTs characterized by stronger transformational leadership.

Model : 1

Y : M_Creat

X : CQTotal

W : M_Leader

Covariates: NGender2 ReAge_1

Sample Size: 179

OUTCOME VARIABLE: M_Creat

Model Summary

R	R-sq	MSE	F	df1	df2	p
.5000	.2500	.5638	11.5355	5.0000	173.0000	.0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	1.8884	1.6523	1.1429	.2547	-1.3729	5.1497
CQTotal	.6118	.2981	2.0527	.0416	.0235	1.2001
M_Leader	.2166	.4384	.4940	.6219	-.6487	1.0818
Int_1	-.0209	.0750	-.2785	.7810	-.1690	.1272
NGender2	-.0094	.1128	-.0832	.9338	-.2320	.2132
ReAge_1	-.0018	.0058	-.3121	.7554	-.0133	.0097

Product terms key:

Int_1 : CQTotal x M_Leader

Test(s) of highest order unconditional interaction(s):

	R2-chng	F	df1	df2	p
X*W	.0003	.0776	1.0000	173.0000	.7810

Focal predict: CQTotal (X)

Mod var: M_Leader (W)

Appendix 19 –Other analysis for further interests

Model 4: Test Team CQ Total, Team Creativity and all of controlling variables (Age, Gender, Time working with Team, Reason of working virtually, Contract Type, Frequency of working virtually, Position)

Only Team CQ Total is significant with Team Creativity. The result shows that all of other variables are not controlling variables because none of them is significant.

		Coefficients ^a					Collinearity Statistics	
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Tolerance	VIF
		B	Std. Error	Beta				
1	(Constant)	2.473	1.254		1.973	.052		
	ReAge_1	-.010	.010	-.117	-1.043	.300	.773	1.294
	NGender2	-.021	.193	-.011	-.107	.915	.854	1.171
	CQTotal	.590	.158	.399	3.741	.000	.858	1.166
	Position	-.045	.164	-.030	-.278	.782	.844	1.185
	Contract type	-.062	.367	-.018	-.170	.866	.914	1.094
	NTime Team	.134	.146	.102	.921	.360	.797	1.254
	Reason of working virtually	-.064	.219	-.030	-.292	.771	.950	1.052
	Frequency of working virtually	.045	.088	.055	.512	.610	.860	1.163

a. Dependent Variable: Mean Creativity

Appendix 20 –Independent t-test

Sig Levene's test is >0.05 , so we have equal variances assumed between two groups. There is no significant difference between the means of these two groups because the observed p of 0.434 is greater than the criterion of 0.05. The opinions of people at different levels no matter they are team leaders or team members are similar and consistent with each other.

Independent Samples Test									
		Levene's Test for Equality of Variances		t-test for Equality of Means					
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference Lower Upper
Mean Creativity	Equal variances assumed	.007	.933	-.785	168	.434	-.11867	.15116	-.41708 .17975
	Equal variances not assumed			-.774	75.877	.441	-.11867	.15323	-.42387 .18653

Appendix 21 –Other interesting information regarding common language

Appendix 21a – What is the common language in GVTs?

Does the company specify a common language to be used when employees have different mother languages?

		Frequency	Percent	Valid %	Cumulative %
Valid	If yes, what is the common language used in your team?	128	71.5	75.3	75.3
	If no, what is the common language used in your team not defined by the company ?	42	23.5	24.7	100.0
	Total	170	95.0	100.0	
Missing	System	9	5.0		
Total		179	100.0		

Does the company specify a common language to be used when employees have different mother languages? - If yes, what is the common language used in your team?

		Frequency	Percent	Valid %	Cumulative %
Valid		55	30.7	30.7	30.7
	Danish	2	1.1	1.1	31.8
	Danish and German	1	.6	.6	32.4
	Dutch	2	1.1	1.1	33.5
	Dutch and English	1	.6	.6	34.1
	Dutch and German	4	2.2	2.2	36.3
	English	110	61.5	61.5	97.8
	German	4	2.2	2.2	100.0
	Total	179	100.0	100.0	

Does the company specify a common language to be used when employees have different mother languages? - If no, what is the common language used in your team not defined by the company ?

		Frequency	Percent	Valid %	Cumulative %
Valid		137	76.5	76.5	76.5
	Dutch	1	.6	.6	77.1
	Dutch and German	7	3.9	3.9	81.0

Dutch when speaking with local team - English in virtual / international calls.	1	.6	.6	81.6
English	26	14.5	14.5	96.1
English - international colleagues	1	.6	.6	96.6
German	5	2.8	2.8	99.4
Spanish	1	.6	.6	100.0
Total	179	100.0	100.0	

Appendix 21b – When do you use this common language?

Case Summary

	Valid		Cases Missing		Total	
	N	Percent	N	Percent	N	Percent
\$LangUse ^a	170	95.0%	9	5.0%	179	100.0%

a. Dichotomy group tabulated at value 1.

\$LangUse Frequencies

		Responses		
		N	Percent	% of Cases
LangUse ^a	Reports, minutes, memos	155	13.2%	91.2%
	Emails	163	13.9%	95.9%
	Presentations, discussions	155	13.2%	91.2%
	Meetings, conferences, workshops, trainings	163	13.9%	95.9%
	Phone-calls	148	12.6%	87.1%
	Company legal documents and forms	126	10.8%	74.1%
	Appraisal interviews	121	10.3%	71.2%
	Informal talk, socializing with colleagues outside work	130	11.1%	76.5%
	Other situations, please specify	11	0.9%	6.5%
Total		1172	100.0%	689.4%

a. Dichotomy group tabulated at value 1.

How often do you use another language?

How often do you use another language, not the common language or lingua franca (English) in conversations with your colleagues?

Frequency	Percent	Valid %	Cumulative %
-----------	---------	---------	--------------

Valid	Never	38	21.2	22.4	22.4
	Seldom	63	35.2	37.1	59.4
	About half the time	40	22.3	23.5	82.9
	Usually	17	9.5	10.0	92.9
	Always	12	6.7	7.1	100.0
	Total	170	95.0	100.0	
Missing	System	9	5.0		
Total		179	100.0		

Appendix 21c – The importance of common language

Importance of common language in your work

		Frequency	Percent	Valid %	Cumulative %
Valid	Very Unimportant	15	8.4	8.8	8.8
	Unimportant	5	2.8	2.9	11.8
	Neither unimportant nor important	9	5.0	5.3	17.1
	Important	51	28.5	30.0	47.1
	Very important	90	50.3	52.9	100.0
	Total	170	95.0	100.0	
Missing	System	9	5.0		
Total		179	100.0		

Appendix 21d – The importance of language training course

Importance of language training course by company in work

		Frequency	Percent	Valid %	Cumulative %
Valid	Very unimportant	13	7.3	7.6	7.6
	Unimportant	9	5.0	5.3	12.9
	Neither unimportant nor important	34	19.0	20.0	32.9
	Important	66	36.9	38.8	71.8
	Very important	48	26.8	28.2	100.0
	Total	170	95.0	100.0	
Missing	System	9	5.0		
Total		179	100.0		

Appendix 21e – Having formal guidelines on a common language

Some people believe that having formal guidelines on a common language restricts employees' language use. What do you think about this?

	Frequency	Percent	Valid %	Cumulative %
--	-----------	---------	---------	--------------

Valid	Strongly agree	6	3.4	3.5	3.5
	Agree	35	19.6	20.6	24.1
	Undecided	51	28.5	30.0	54.1
	Disagree	58	32.4	34.1	88.2
	Strongly disagree	20	11.2	11.8	100.0
	Total	170	95.0	100.0	
Missing	System	9	5.0		
Total		179	100.0		

A formal working language for the whole company

Do you think a formal working language for the whole company is necessary and desirable?

		Frequency	Percent	Valid %	Cumulative %
Valid	Strongly agree	42	23.5	24.7	24.7
	Agree	62	34.6	36.5	61.2
	Undecided	31	17.3	18.2	79.4
	Disagree	22	12.3	12.9	92.4
	Strongly disagree	13	7.3	7.6	100.0
	Total	170	95.0	100.0	
Missing	System	9	5.0		
Total		179	100.0		

Appendix 21f – Which languages they want to improve their proficiency

\$AddLang

		Responses		% of Cases
		N	Percent	
AddLang ^a	English	96	38.1%	56.5%
	Dutch	32	12.7%	18.8%
	German	43	17.1%	25.3%
	French	35	13.9%	20.6%
	Spanish	23	9.1%	13.5%
	Other languages	23	9.1%	13.5%
Total		252	100.0%	148.2%

Appendix 22 – A summary table of result

Hypotheses	Result	Notes
H1: Team cultural intelligence is positively associated with team creativity in global virtual teams.	Accepted	Adjusted R ² : 0.233 Sig = .000
H2a: The level of common language proficiency is positively associated with the level of team creativity in global virtual teams.	Not Accepted	Adjusted R ² : -0.006 Sig = .59
H2b: The level of team trust is positively associated with the level of team creativity in global virtual teams	Accepted	Adjusted R ² : 0.190 Sig = .000
H2c: The level of transformational leadership is positively associated with the level of team creativity in global virtual teams.	Accepted	Adjusted R ² : 0.114 Sig = .000
H3a: Common language proficiency moderates the relationship between team CQ and team creativity so that the relationship is more positive in GVTs characterized by higher language proficiency.	Not Accepted	Sig = 0.19
H3b: Team trust moderates the relationship between team CQ and team creativity so that the relationship is more positive in GVTs characterized by higher team trust.	Accepted	Adjusted R ² : 0.297 Sig = 0.03
H3c: Transformational leadership moderates the relationship between team CQ and team creativity so that the relationship is more positive in GVTs characterized by stronger transformational leadership.	Not Accepted	Sig = 0.78

Research Integrity Form - Master thesis

Name: Vi Thi Tuong Lam	Student number: S1040964
RU e-mail address: vi.lam@ru.nl	Master specialisation: Strategic HR Leadership

Thesis title: The relationship of team cultural intelligence, language proficiency, team trust, transformational leadership and team creativity in global virtual teams.

Brief description of the study: This quantitative study with deductive approach was conducted to test the relationship of team cultural intelligence, language proficiency, team trust, transformational leadership and team creativity in global virtual teams.

It is my responsibility to follow the university's code of academic integrity and any relevant academic or professional guidelines in the conduct of my study. This includes:

- providing original work or proper use of references;
- providing appropriate information to all involved in my study;
- requesting informed consent from participants;
- transparency in the way data is processed and represented;
- ensuring confidentiality in the storage and use of data;

If there is any significant change in the question, design or conduct over the course of the research, I will complete another Research Integrity Form.

Breaches of the code of conduct with respect to academic integrity (as described / referred to in the thesis handbook) should and will be forwarded to the examination board. Acting contrary to the code of conduct can result in declaring the thesis invalid

Student's Signature:

Date:

To be signed by supervisor

I have instructed the student about ethical issues related to their specific study. I hereby declare that I will challenge him / her on ethical aspects through their investigation and to act on any violations that I may encounter.

Supervisor's Signature: _____ **Date:**

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Student number : S1040964

Student name : Vi Lam Thi Tuong

Thesis title : The relationship of team cultural intelligence, language proficiency, team trust, transformational leadership and team creativity in global virtual teams.

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