

**The Intersection of Cultural Diversity Outcomes and Leadership:**

A Study of Multicultural Personality Traits

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## ABSTRACT

*Global diversity has made cultural diversity prevalent in many organizations, calling for effective leadership styles to guide the outcomes of culturally diverse teams. While leadership styles influence how leaders drive and manage their teams, personality traits must also be considered in a leader's behavior. More specifically, when researching culturally diverse teams, multicultural personality traits (MPQ) can influence how a leader leads their team and, in turn, influence the diversity work outcomes of the team. The study identified the following research question: How do a leader's MPQ traits and leadership styles moderate the relationship between team cultural diversity and diversity outcomes? A quantitative survey was sent to people with experience working in culturally diverse teams (condition: more than two cultures). The influence of Diversity-oriented and Transactional Leadership, Cultural Empathy, Emotional Stability, Flexibility, Openmindedness, and Social Initiative on culturally diverse teams' outcomes was analyzed using regression and moderation analyses. The data showed no significant effects which would accept any of the proposed hypotheses. Social Initiative was the only multicultural personality trait and moderating variable that showed significance as a moderator in the relationship between team cultural diversity and team innovation. However, it showed that diversity in teams with a high-social initiative leader leads to lower team innovation, contradicting previous studies and literature. Despite not having a moderating effect, all moderating variables, except Flexibility, directly affected either collective team identification, team innovation, or both.*

*In sum, while not through moderation, leadership style and a leader's multicultural personality is related to the level of collective team identification and team innovation, regardless of how culturally diverse the team is. These findings emphasize the significance of leadership styles and personality in team diversity outcomes and shed light on leadership and human resource management to consider these factors when selecting candidates for leadership positions.*

**KEYWORDS:** *Multicultural Personality, Leadership Styles, Diversity Outcomes, Cultural Diversity, Diversity Management*

## **Preface**

Through the roller coaster of this Masters, I would like to express my deepest gratitude to my loving husband, Floris. He has acted as my biggest fan, therapist, assistant, and energy reserve on the days or weeks where I needed it the most. Without his unwavering belief in my potential, this past year and all its challenges would have felt endless.

## **List of Abbreviations**

CE = Cultural Empathy

CTI = Collective Team Identification

DOL = Diversity-Oriented Leadership

ES = Emotional Stability

FX = Flexibility

H = Hypothesis

MPQ = Multicultural personality Questionnaire

OM = Open-mindedness

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## 1. Introduction

Globalization is no longer a new phenomenon; almost any given corporation or organization has more than one culture represented in its workforce. However, having an effective way of managing cultural diversity is not a given. The increasing diversity in the worldwide workforce and the need for organizations to manage and leverage diversity effectively is a driving force in understanding the relationship between culturally diverse teams and their outcomes. Despite the positive outcomes found within a diverse workforce, such as job satisfaction and team innovation, adverse outcomes have also been indicated within job satisfaction and team commitment (Jehn et al., 1999). However, by looking at additional variables, the influence of positive or negative outcomes of diversity can easily change.

Although many organizations may have a low level of cultural diversity, they will likely encounter cultural diversity through their stakeholders. Therefore, knowing how to manage a diverse group of people best is key to getting positive work outcomes. Everyone has their leadership style, which plays a role in how people act at work, at home, and even out shopping. It dictates the way they communicate, expect others to behave, and how they reward. Because of this, organizations have begun looking for candidates with specific leadership styles to generate the outcomes they are looking for (Mumford et al., 2020), especially as managing a diverse team can be difficult and can lead to adverse team outcomes (Jehn et al., 1999). So, while organizations learn that they must reap the benefits, it has remained to be seen which type of leadership style is most effective in managing culturally diverse teams. Not only does effective management happen with the right leadership style, but its positive outcomes can be achieved through a leader's multicultural personality traits (MPQ), which can play a role in their readiness to navigate and appreciate cultural differences represented in their team. Both factors (leadership style and MPQ) have not been researched thoroughly to understand which type of leader can effectively manage the diversity outcomes of their teams.

Studies have reinforced the need for organizations to create an inclusive climate for employees to realize the benefits of work group diversity (Groeneveld, 2014), and leaders play a crucial role in supporting the climate. Nishii and Mayer (2009) found that leadership is essential to creating inclusive, diverse teams and reducing employee turnover. While much research has focussed on transformational leadership and its effectiveness with team diversity outcomes (Kearney & Gerbert, 2009; Mickson et al., 2020; Wang et al., 2016), organizations must search for measures to use in place of transformational leadership (Kearney & Gerbert,

2009). Regarding research on leadership styles and cultural diversity, other leadership styles have yet to be researched to the same extent as transformational.

While MPQ is not a new variable in the study of diverse workforces, it is in relation to leadership styles. In management literature, cross-cultural competencies have been proposed to be crucial in developing culturally diverse teams (Iles, 1995). However, research has yet to be done regarding the relationship between MPQ traits and leadership styles, further emphasizing the relevance of the current research. By carrying out this research, data supporting leadership styles other than transformational can close the gap within the relationship between leadership styles and diversity outcomes. From there, new studies can begin researching diversity outcomes other than employee retention and job satisfaction. With this in mind, a survey will collect responses from a diverse sample group with experience working in a culturally diverse team to answer the following research question: *How do a leader's MPQ traits and leadership styles moderate the relationship between team cultural diversity and diversity outcomes?*

To begin understanding the various variables researched, the Theoretical Framework (Chapter 2) provides a comprehensive presentation of current literature and past theories to establish the groundwork for this research. In the chapter, the main concepts of this study – diversity-oriented leadership, transactional leadership, multicultural personality traits, collective team identification, and team innovation are defined and followed with relevant hypotheses. A conceptual model is included to visualize the hypotheses. The Methodology chapter (Chapter 3) presents the research design, procedure, sampling methods, and measurements and shares the description of the final sample. The Results chapter (Chapter 4) presents the results of the conducted analyses. For the Methodology and Results chapters, IBM SPSS is utilized to conduct various analyses and test the hypotheses in Chapter 2. Finally, the discussion (Chapter 5) will address the research question and explore this study's theoretical and practical implications and limitations while offering recommendations for future research.

## 2. Theoretical Framework

This chapter will explain and discuss relevant literature on the key concepts and theoretical perspectives that form the research. Firstly, the two diversity outcomes the research focuses on are introduced, Collective Team Identification and Team Innovation. Next the moderating variables, Diversity-Oriented leadership, Transactional leadership, and the Multicultural Personality Questionnaire, will be defined and explained. Hypotheses are included with their corresponding variable. Finally, the conceptual model of this research is presented.

The current study focuses on cultural diversity, which includes nationality, race, and ethnicity. National culture is based on countries and includes ethnicities, as several countries have several ethnic cultures within their borders (Wang et al., 2019). Despite nationality including ethnicities, ethnicity is still mentioned as a separate variable for respondents to consider, as ethnic cultures can be found in several countries. In addition, some ethnic groups may identify with another nationality (for example, an ethnic Arab may identify as a Swedish national) (Leung et al., 2005; Tung, 1993). Despite race being a genetically determined part of an individual, it is still included in this research's understanding of cultural diversity as it is something passed down from one's ancestry, and through that, lived experiences, ethnic cultures, and more are to an extent also passed down to a person. Despite race being genetically determined, we must consider that race is also a social construct, which has been used negatively to discriminate and exploit certain groups of people. However, as a social construct, race also carries social meanings that develop over time and become a culture contained within a particular racial group (Benson, n.d.).

### 2.1 Collective Team Identification

*Collective team identification* (CTI) refers to the feeling of belonging to a group and the shared recognition of being part of a common entity (Van der Vegt & Bunderson, 2005); it can be comparable to the much broader studied work-related attitude of *Organizational Identification* which refers to an individual's sense of belonging in the organization in which they work (Karanika-Murray et al., 2015). CTI has effectively captured the driving force behind an individual's participation in social interactions (Kearney & Gerbert, 2009). Studies have shown that CTI has positively affected job satisfaction, team innovation, and team performance (Cicero et al., 2007; Kavanagh et al., 2021; Van der Vegt & Bunderson, 2005). It is worth mentioning that despite CTI usually being an individual's perception, it can be shaped by other factors. A study by Kavanagh et al. (2021) showed that top management



teams' CTI can shape the CTI of a team. The interpretation is then trickled down to the top management team's respective teams.

Despite collective team identification acting as the driving force in positive effects on several work outcomes, little research has looked at the effects of diversity on CTI. In 2007, Rink and Ellemers proposed a framework in which social identity processes would lead to employees viewing their (task-related) diversity positively, resulting in diversity becoming a basis for organizational identification. Although research has not studied the effect of diversity on CTI, studies have found the positive moderating role of CTI on the relationship between team diversity and work outcomes (Kearney et al., 2009; Shemla & Wegge, 2018). There is limited research on collective team identification compared to organizational identification, and research has yet to look at the effect of team cultural diversity and CTI. Some researchers have assumed that individuals may find it challenging to identify with a diverse team (Chattopadhyay, 1999; Scott, 1997; Van der Vegt et al., 2003); and a meta-analysis by Stahl et al. (2010) found that cultural diversity in teams led to process losses through task conflict. Because of these assumptions, and previous studies, we can continue to assume that with a moderating variable (such as leadership style), CTI would have a positive relationship with culturally diverse teams. Therefore the following hypothesis is theorized:

*H1: Cultural diversity has a negative effect on collective team identification*

As mentioned earlier, CTI can be shaped by top management teams' CTI. However, leadership styles can also directly impact it. With some leaders able to foster and promote a sense of belonging and efficacy to accomplish goals, different leadership styles have brought forth various levels of team cohesiveness (Ruggieri & Scaffidi Abbate, 2013). In their study, Ruggieri & Scaffidi Abbate (2013) found that leadership style and self-sacrifice positively related to team identification in transactional and transformational leaders but remained more significant for transformational leaders. However, only a small fraction of research has aimed at understanding the relationship between specific leadership styles and collective team identification, leaving room for this study to explore the possible moderating relationships.

## **2.2 Team Innovation**

West and Farr (1990, p. 9) define innovation as “the intentional introduction and application within a role, group or organization of ideas, processes, products, or procedures...designed to significantly benefit the individual, the group, organization or wider society.” Innovation is crucial for corporations trying to keep ahead of their competition. However, despite the importance of team innovation, little research has been conducted on

the topic. Instead, research has focussed on individual creativity (Van Knippenberg, 2017). While studies have separated team innovation and creativity as two individual variable's De Dreu and West's (2001) description of innovation includes the necessity of creativity, no longer separating the two, this is also what the study will consider when discussing team innovation.

Diversity has been shown to benefit innovation in various ways; for example, diverse knowledge structures evoke learning and problem-solving skills that allow for innovation (Simon, 1985). In a similar study to the current one, deep-level diversity in culturally diverse teams was found to correlate positively to team innovation due to its informational benefits (Wang et al., 2019). More positive correlations have been found between team innovation and cultural diversity (Gassmann, 2001; Jones et al., 2020; Rother & Grau, 2018) and other diversity demographic dimensions (Tshetshema & Chan, 2020), adding to the relationship between diversity and team innovation. However, despite the positive relationships, studies have also found the adverse effect between the two. Mitchell and Boyle (2015) found that the presence of diversity within a team can either facilitate or hinder team innovation but argue that a mediator, such as professional identity salience, could enhance and weaken team innovation. In their systemic literature review, Tshetshema and Chan (2020) found that although high diversity in respective demographic dimensions (age, gender, and race) increases innovation, when the dimensions were considered together within a team, the demographic diversity showed mixed effects on team innovation. However, in line with Mitchell and Boyle (2015), Tshetshema and Chan (2020) also confirm that moderators could influence desired innovation performance.

When looking at diversity and team innovation, the recommendation of moderators continues with Jones et al. (2020), who affirm that an analysis of team innovation should include a cultural assessment, specifically on cultural awareness and competence. This missing element in the study of team innovation and diversity could be studied further by looking at a leader's understanding of cultures and their openness to them. Aside from looking at a leader's cultural awareness and competence, research can be taken further by studying the effect of leadership styles on the relationship between team cultural diversity and team innovation. Different leadership styles have been shown to affect employee engagement and commitment, leading to innovation management's effect (Bel, 2010); a review by Kesting et al. (2015) focused solely on the relationship between leadership styles and innovation management. However, they only focused on leadership styles with links to innovation management (interactive, charismatic, transformational, transactional and

instrumental, strategic and CEO, and shared and distributed leadership), which continues to leave a gap in research for other leadership styles to be studied.

### **2.3 Diversity-Oriented Leadership**

Understanding the interplay between collective team identification and team innovation on leadership styles is essential to comprehend which type of leader can achieve optimal performance from their culturally diverse teams. *Diversity-oriented leadership* refers to “...leadership behaviors that invite and appreciate the contributions of employees of diverse backgrounds and characteristics.” (Lee et al., 2021, p. 2). More specifically, diversity-oriented leadership is committed to a workforce representative of all societal demographic and experience groups (Moldogaziev & Silvia, 2015). In addition, diversity-oriented leaders ensure that the goals set are fair for all employees and without prejudice (Luu et al., 2019) and that employees can participate in decision-making and give constructive feedback, which their leader values and wants to hear (Nembhard & Edmondson, 2006; Nishii & Mayer, 2009).

The work outcomes that diversity-oriented leadership can achieve is, first and foremost, a work environment in which employees can rely on their leaders and be enthusiastic and engaged with their work (Luu et al., 2019). In such an environment, employees have been shown to increase their knowledge-sharing behaviors (Lee et al., 2020), which could positively affect the collective team identification felt through the employee’s working teams. However, while positive effects have been seen between diversity-oriented leadership and certain behaviors, a study by Moldogaziev and Silvia (2015), which researched leadership roles on fostering affective organizational commitment, found that diversity-oriented leadership had no association with affective organizational commitment. As there are opposing views on the relationship that diversity-oriented leadership could have on affective organizational commitment and employee engagement (Moldogaziev & Silvia, 2015; Lee et al., 2021), this study finds it valuable to understand the moderation effect that diversity-oriented leadership may have on the relationship between team cultural diversity and collective team identification. By incorporating diversity-oriented leadership, leaders are more likely to effectively bring out the positive work outcomes of a diverse team, as the leadership style includes “...behaviors that invite and appreciate contributions from all employees...” regardless of background or identity (Lee et al., 2021, p. 2). By fostering a work environment where employees are supported and engaged, diversity-oriented leaders can encourage knowledge-sharing behaviors, positively influencing collective team

identification output. These learnings can then, in turn, be applied to enhance and support other positive diversity work outcomes. Therefore, the second hypothesis is introduced:

*H2: The relationship between team cultural diversity and collective team identification is stronger in the presence of diversity-oriented leadership.*

## **2.4 Transactional Leadership**

*Transactional leadership* refers to the relationship between a leader and follower, which aims to fulfill their respective self-interests (Bass, 1999)—usually taking the form of a contingent reward that a follower can receive if they do what is needed by them, as clarified by their leader (Bass, 1999). In essence, transactional leadership is rooted in bureaucratic authority and legitimate power within an organization, with transactional leaders relying on incentives and consequences to influence the performance of their employees (Hood, 2003). Because employees understand that there are rewards through achievements, it can encourage employees to focus only on themselves and see the achievement as a personal win rather than the team's (Lord et al., 1999). This outcome can create the risk that only the employees who outperform their colleagues will receive the reward (Bolino et al., 2002), leading to employees being more competitive with one another rather than collaborative (Aboramadan & Kundi, 2020).

In their study on the relationship between transformational and transactional leaders on work-related outcomes (work engagement, affective commitment, and organizational citizenship behavior), Aboramanda and Kundi (2020) found that transformational leaders have a more substantial positive influence on work-related outcomes than transactional leaders. Nevertheless, transactional leadership has also shown positive significance to other work outcomes, including innovation. Transactional leaders positively influenced managing innovation during the implementation phase (Howell & Avolio, 2010) but not when cultivating new ideas (Pieterse et al., 2010). The three previously mentioned studies can lead us to believe that transactional leaders may be more likely to have the same less positive effect on the diversity outcomes chosen for this research. It is worth mentioning that despite the previously mentioned studies pointing towards the negative relationship of transactional leadership, some studies have found that transactional leaders not only work towards implementing diversity practices and initiatives but that transactional leaders are more likely to use diversity training than transformational leaders (Hood, 2003; Ng & Sears, 2012). Given the inconsistent findings, and as it has yet to be researched, it is worth exploring the potential moderation of transaction leaders in the relationship between team cultural diversity

and diversity outcomes. The result of such research would provide valuable insights for leaders of culturally diverse teams to understand how transactional leadership can leverage diversity effectively, leading to the next set of hypotheses.

*H3: The relationship between team cultural diversity and collective team identification are negative in the presence of transactional leadership.*

*H4: The relationship between team cultural diversity and team innovation are negative in the presence of transactional leadership.*

The past two chapters (chapters 2.3 and 2.4) have aimed at highlighting the significant role which leadership styles play in shaping the dynamics and functioning of culturally diverse teams. From acting as barriers or stimulants to realizing the benefits of diversity, an effective leader can foster and nurture a culturally diverse team to actualize positive diversity work outcomes. By looking at diversity-oriented and transactional leadership as moderators in the relationship between culturally diverse teams and diversity outcomes, can help uncover specific behaviors that amplify or weaken these outcomes or if there may be another factor, such as a cultural assessment as suggested by Jones et al. (2020), that may be the moderator which organizations should look for within their leadership teams.

## **2.5 Multicultural Personality Questionnaire**

Studies have shown that not only does leadership affect team and group performance, but that personality predicts leadership (Hogan & Kaiser, 2005; Howell & Avolio, 1993; Lord et al., 1986), and many personality traits are linked to leadership behavior to a great extent (Erkutlu & Chafra, 2012; Lord et al., 1986). The Big Five (Costa & McCrae, 1992) personality traits have been used to generalize an individual's personality and explain their tendencies. However, the generality of the Big Five does not allow one to understand an individual's behavior towards interculturalism. Therefore, van der Zee and van Oudenhoven (2000) developed the Multicultural Personality Questionnaire (MPQ), which includes five traits derived from the Big Five which cover behavioral tendencies more relevant to multicultural success (van der Zee et al., 2004). The MPQ is a widely-used tool in cross-cultural psychology as it assesses an individual's multicultural competencies and measures how an individual can navigate through cultural differences and adapt to diverse cultural contexts, not to mention that the traits are relevant to achieving multicultural success (van der Zee & van Oudenhoven, 2000). The research will use the MPQ to measure how a leader's multicultural personality affects their leadership style and the work outcomes of their culturally diverse team.

The authors argue that the five traits can be split further into two groups, *stress-related traits* (emotional stability, flexibility) “...are linked to a lower tendency to perceive an intercultural situation as threatening...” (van der Zee & van Oudenhoven, 2013, p. 928). Whereas *social-perpetual traits* (cultural empathy, social initiative, and openmindedness) may have individuals respond to the challenging aspects of an intercultural situation with positivity (van der Zee & van Oudenhoven, 2013).

The first dimension, *cultural empathy*, refers to the capacity to understand and share the emotions, perspectives, and actions of individuals from diverse cultural groups (van der Zee & van Oudenhoven, 2000). Individuals who score high in this trait are less prone to experiencing communication issues in culturally diverse teams (van der Zee et al., 2004), which could benefit culturally diverse teams and their perception of collective team identification. As mentioned earlier, Jones et al. (2020) recommended including an element of cultural assessment; cultural empathy would be a solid element to incorporate as it encompasses the capacity to understand individuals of a diverse group and could aid in support of team innovation.

Research that focuses on cultural empathy and its relationship to diversity work outcomes has yet to be found. However, some studies have been found that focus on empathy and diverse group performances. Leadership empathy is crucial as a leader’s empathy level towards social groups can shape their view of organizational policies that affect the well-being of others and result in supporting diverse teams to realize various work outcomes (Roberge, 2013). Research has suggested that affective empathy may not be present in the activation of the social categorization process in diverse groups. If it is present, it is not easy to experience. It may result in reduced collaboration and team identification (Roberge, 2013). This assumption is further fueled by a study by Mahsud et al. (2010), which confirmed that leaders scoring high on empathy were likely to engage in relationship-oriented leadership behaviors, which could result in a higher relationship in collective team identification. As for innovation, a case study by Montonen et al. (2015) found that empathic facilitation was a crucial element in the innovation process to produce rapid innovations. Another literature review by Humphrey (2013) showed that empathy is related to leadership effectiveness which could influence the outcome of innovation, as empathic leaders are more likely to grant their employees autonomy and freedom to work on projects of their choosing. A study by Zárrega and Bonache (2005) found that employees with an empathic leader were highly creative and innovative. These findings could suggest that a leader with a high cultural empathy score could maintain the presence of collective team identification and team innovation in their

culturally diverse teams. It is therefore assumed that a low cultural empathy score would result in a negative relationship with either diversity outcomes; therefore, the fifth hypothesis is introduced:

*H5: A leader's CE score moderates the positive relationship between team cultural diversity and diversity outcomes. The relationship is expected to be stronger for leaders with a high CE than those with a low CE score.*

*Emotional Stability* is defined as the capacity to maintain composure in stressful scenarios compared to displaying strong emotional reactions under stressful circumstances (van der Zee & van Oudenhoven, 2000). Past studies have concluded emotional instability as the number one predictor of management failure (Parolini, 2005; Van Velsor & Lesli, 1995), while a similar concept of emotional intelligence was found to increase the enthusiasm and influence of a leader's followers (Erkutlu & Chafra, 2012). As the two concepts of emotional stability and emotional intelligence are comparable, it can be assumed that the results of studies done using a leader's emotional intelligence would replicate once again in this study which looks at a leader's emotional stability. In their study, Erkutlu and Chafra (2012) found that a leader's emotional intelligence positively influenced team empowerment and proactivity. *Flexibility* encompasses the perception of new situations as an opportunity and the ability to adapt and respond to these situations accordingly (van der Zee & van Oudenhoven, 2013). Flexibility is crucial to multicultural effectiveness, as standard working methods can only sometimes be applied in a new cultural working environment, especially when expectations are not met (van der Zee & van Oudenhoven, 2000).

In a high-diversity setting, emotional stability and flexibility showed to have a positive effect on work outcomes (van der Zee et al., 2004), especially regarding flexibility which showed to be a predictor of innovative work behavior on expatriates (Van Oudenhoven et al., 2003). Not only that, but a study by Yakunina et al. (2012), which researched the effect of multicultural personality traits as predictors of internal students' openness to diversity and adjustment, found that students who were more empathetic, flexible, and openminded showed greater openness to diversity and resulted in better cross-cultural adjustment. Based on previous findings, the following hypotheses are introduced:

*H6: A leader's ES score moderates the relationship between team cultural diversity and diversity outcomes. The relationship is expected to be stronger for leaders with low ES than those with high ES.*

*H7: A leader's FX score moderates the relationship between team cultural diversity and diversity outcomes. The relationship is expected to be stronger for leaders with a low FX than those with a high.*

*Openmindedness* is the fourth dimension introduced as "... an open and unprejudiced attitude towards outgroup members and different cultural norms and values" (van der Zee & van Oudenhoven, 2000, p. 294). *Openmindedness* outside the multicultural personality framework encompasses the belief that all individuals should have the space to express their views without any limitations or restrictions (Tjosvold & Poon, 1998). Studies by Hammer et al. (1978) and Ronen (1989) found that an unprejudiced attitude is critical for multicultural effectiveness, which could result in a positive relationship towards diversity outcomes. Other studies have found that openness to experience was positively related to individual creativity and moderated by gender diversity (Guo et al., 2017) and that under high levels of *openmindedness*, professional diversity had a positive relationship with innovation (Mitchell & Boyle, 2015). Based on the background of research that has been done on *openmindedness*, the following hypothesis is presented:

*H8: A leader's OM score moderates the relationship between team cultural diversity and diversity outcomes. The relationship is expected to be stronger for leaders with a high OM score than those with a low.*

*Social Initiative* is a higher likelihood of actively participating in social situations (van der Zee & van Oudenhoven, 2013). Individuals who score high on social initiative tend to be more proactive when approaching new situations and people rather than being reactive (van der Zee & van Oudenhoven, 2013). Unlike the other traits, social initiative is the one trait that is first and foremost directly linked to relationship building (van der Zee & van Oudenhoven, 2013). In an experimental study by van der Zee and van Oudenhoven (2013), students with a high social initiative score had positive affective responses to a videotaped scene of a culturally diverse team meeting; this study suggested that social-perceptual traits focus on the possibilities of intercultural situations.

As studies have not exclusively looked at the role of social initiative in diversity work outcomes, this current study has used previous studies on *proactivity* to understand the possible relationship between social initiative and the two diversity work outcomes introduced in sections 2.1 and 2.2. When studying the relationship between quality management practices and innovation performance, Escrig-Tena et al. (2018) found that the mediating effect of proactive employee behavior facilitated innovation. Åmo (2006) found that employees with high levels of *proactivity* recorded higher levels of innovative behavior;



similar findings were also reported by Dost et al. (2018). No studies which looked at proactivity and collective team identification were found; however, it can be assumed by a previously mentioned study by Erkutlu and Chafra (2012) which found that a leader’s proactive personality positively influences team empowerment, that a similar result would be seen between a leader’s high social initiative score and collective team identification. Based on the definition of social initiative, it can be assumed that leaders with a low score are likelier to not interact or engage well with culturally diverse teams, negatively affecting their team’s diversity outcomes, therefore the final hypothesis:

*H9: A leader’s SI score moderates the relationship between team cultural diversity and diversity outcomes. The relationship is expected to be stronger for leaders with a high SI than those with a low.*

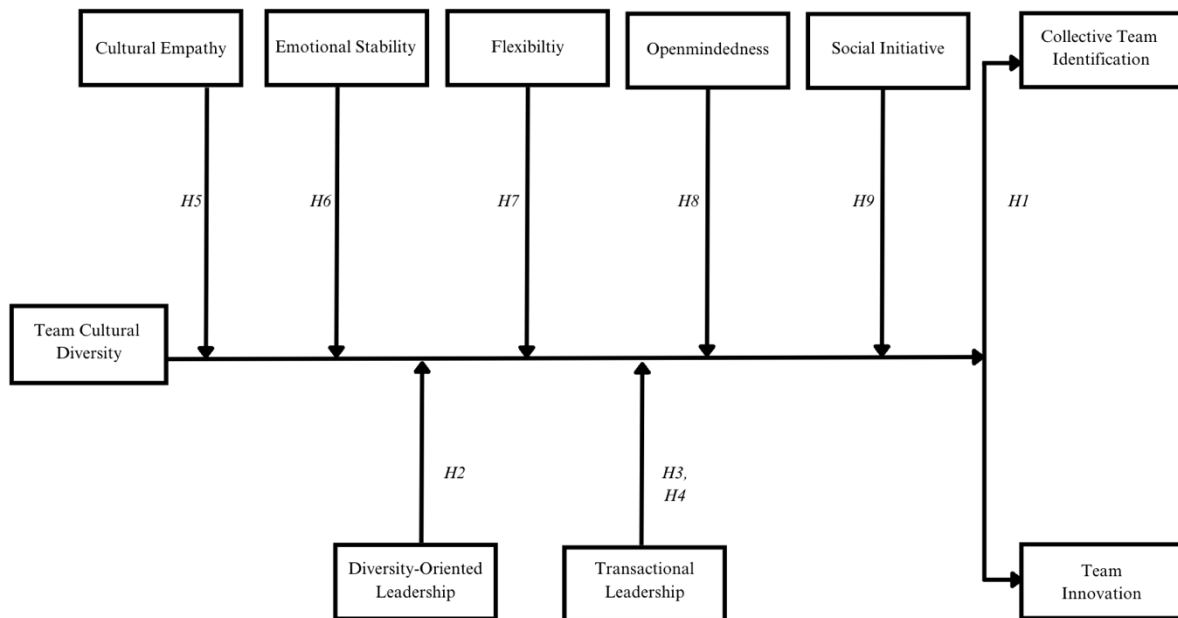


Figure 1 Conceptual Model

### **3. Methodology**

In this chapter, the methodological choices made for the study are outlined. First, the research design is introduced, followed by the procedures taken for the deployed survey. Next, an overview of the sample's descriptive statistics is shared, and the measures for each key variable are introduced.

#### **3.1 Research Design**

The research question aims to explore the influence of team cultural diversity (independent variable) on two diversity outcomes (dependent variables) with the additional of leadership styles and MPQ (moderation variables). Because of this, a quantitative approach is most suitable (Holton & Burnett, 2005), specifically for online surveys (Neuman, 2014). Additionally, quantitative methods are suitable for studying moderation effects. An online survey can allow the researcher to examine a phenomenon at a large scale and facilitate the generalization of the observations to a broader population.

##### **3.3.1 Procedure**

The online survey (see Appendix A) was created using Qualtrics, allowing participants to answer through any device connected to the internet; the survey was also optimized for smartphones to make the answering experience smoother. The survey was published between the 26th of March, 2023, to the 8th of May, 2023. The survey was only made available in English and included 33 questions, with a majority of matrix tables. Two members of the target group pilot-tested the survey. Aside from some grammatical errors or spelling mistakes, the first tester needed to take herself into account when answering one of the conditional questions. However, as she did not, she was brought to the end of the survey. From there, the reminder for respondents to include themselves when answering was added to any relevant questions. The second tester did not find any uncertainties. The survey took approximately 10-15 minutes to complete. When beginning the survey, participants were met with a detailed consent form which included necessary legal information for research conducted at universities in the Netherlands and an explanation of the participant's anonymity and voluntariness. The form also included a brief explanation of the nature of the research.

Three conditions were to be met for the participant to continue answering the survey. The first was that they agreed to participate in the survey, followed by whether they had any work experience (paid or unpaid), had experience working in a team, and whether or not their team (which they were answering questions regarding) represented two or more cultures. If

participants disagreed to participate in the survey, did not have work or team experience, or if their team did not represent two or more cultures, they were sent to the end of the survey and thanked for their participation. If they met the conditions, participants were asked to answer questions based on their most recent work experience. Questions were asked about their work team demographics (how many team members and cultures were represented) and their manager's background. Before moving into the scales regarding the variables, respondents answered a 7-point Likert scale (1= strongly disagree, 7= strongly agree) regarding how culturally diverse they believed their team to be. Respondents then answered questions regarding the dependent variables, starting with Job Satisfaction, Collective Team Identification, and Team Innovation. They then moved to the three moderating variables, Diversity-oriented Leadership, Transactional Leadership, and the MPQ. As the MPQ was the most extended scale, the items were split into five separate question boxes and mixed at random instead of corresponding to each personality trait (Cultural Empathy, Flexibility, Social Initiative, Emotional Stability, and Open-Mindedness) so that respondents would not know which was measured. The survey ended with questions regarding demographics such as age, gender, education, nationality, race, religious affiliation, and country of residence. Finally, a text field was included at the end of the survey to allow for any feedback or questions, followed by another field where participants could fill in their email addresses to stay up to date with the thesis (this field included the notice that by filling their email address, their response would no longer be anonymous). Before leaving the survey, respondents received a thank you note and confirmation that their response had been recorded.

### **3.2 Sampling**

Although three conditions had to be met by the respondents, the target population for the survey was still quite broad and open. Because of the conditions, purposive sampling was utilized. The survey was spread through acquaintances of the researcher and posted on the following social media channels, Facebook, Instagram, LinkedIn, and WhatsApp, as well as the intranets of the two employers of the researcher. Nine connections reshared the post on LinkedIn, and the researcher posted on various Facebook groups relating to Diversity, Equity, and Inclusion, or expatriate groups. The survey was also shared on two survey-sharing platforms, SurveySwap.io and SurveyCircle.com. Later, however, snowball sampling was used to expand the sample number, where initial participants continued to spread the survey to members of their network who met the criteria.

After ending the data collection, there were 174 completed responses and 72 incomplete responses collected. During the data cleaning, responses were checked for response completeness and any unusual patterns (by looking at each item's distribution and the failure to follow the request of questions). Any responses that fell within these two groups were excluded. The data were also adjusted for spelling mistakes, namely for the text fields asking the respondent about their country of residence and nationality; if a respondent answered "Dutch" as their nationality, it was changed to "The Netherlands," the same if a respondent answered "Danish," "Denmark" replaced it. As the study examines multiple variables, participants who answered a minimum of 51.5% of the survey (the first 17 questions, and half of the MPQ items) were included in the final sample. A total of 186 responses ( $N = 186$ ) moved on to the analyses. As the demographic questions were asked at the end of the survey (past the 51.5% completion mark), there are 13 missing values within the demographic variables. Although the final survey included a job satisfaction scale, all responses from the scale were removed from the final data set as the analyses would no longer consider the variable, mainly as more studies have included job satisfaction as a diversity outcome than studies that have looked at collective team identification or team innovation. Deleting the scale did not impact the number of respondents.

There were more female respondents (61.3%) than male (31.2%), and only one non-binary respondent (0.5%). The ages of participants ranged from 19 to 68 years old, with the average age being 34.10 ( $SD = 12.96$ ); from the respondents who answered, most obtained a Master's degree (43.5%), followed by a Bachelor's degree (35.5%), and High School diploma (7.0%). A total of 51 nationalities were represented, the majority of respondents coming from the Netherlands (16.1%), followed by Germany and Denmark (8.6%, each), and the United States of America (6.5%). Respondents resided in 33 countries, with the Netherlands being the most common (48.4%), followed by Denmark (7.5%), Germany (5.9%), and finally, Austria and the United States of America (4.3% each). As for the racial identities of the respondents, 55.4% identify as Caucasian/White, followed by 12.4% identifying as Asian, and 9.1% as Mixed race. As for religious affiliation, the two most prominent groups were Christians and Atheists (33.9% each), followed by 15.1% of respondents choosing Other (Agnostics were the most prominent group at 2.7%) and 5.9% Muslims.

When it came to questions regarding their occupational details, 21.0% of respondents worked in the Food and Beverage industry, followed by 20.4% in other industries (answers included NPOs/NGOs/Humanitarian (2.0%), and additive manufacturing (1.0%)), and 8.6% worked in the Entertainment/Media, Creative Industries. The teams the respondents worked

in had a minimum of 2 people and a maximum of 150, and the average number of team members was 11.08 ( $SD = 13.80$ ). An average of 3.75 team members ( $SD = 2.90$ ) were part of a cultural group different than the majority culture of the country in which they worked. As for the cultural identification of the respondent's managers, 67.2% of managers were labeled part of the cultural majority, while 31.7% were part of the cultural minority of the country in which the respondent worked. Finally, respondents were asked on a 7-point Likert scale (1 = strongly disagree, 7 = strongly agree) to which extent they agreed with the statement of how culturally diverse their team was; the average response was 5.40 ( $SD = 1.76$ ).

Table 3.2. Descriptive Statistics Sample ( $N = 186$ )

<b>Variable</b>	<b>Value</b>	<b>Frequency</b>	<b>Percent</b>
Gender	Female	114	61.3%
	Male	58	31.2%
	Non-Binary	1	0.5%
	Missing	13	7.0%
Education	Master's Degree	81	43.5%
	Bachelor's Degree	66	35.5%
	High School Diploma	13	7.0%
	Doctor of Philosophy (PhD)	4	2.2%
	Associates degree	3	1.6%
	Doctorate (Dr)	2	1.1%
	Other	4	2.2%
	Missing	13	7.0%
Nationality	Netherlands	30	16.1%
	Denmark	16	8.6%
	Germany	16	8.6%
	United States of America	12	6.5%
	Other	99	53.2%
	Missing	13	7.0%
Country of Residence	Netherlands	90	48.4%
	Denmark	14	7.5%
	Germany	11	5.9%
	Austria	8	4.3%

	United States of America	8	4.3%
	Other	42	22.6%
	Missing	13	7.0%
Race	Caucasian	103	55.4%
	Asian	23	12.4%
	Mixed	17	9.1%
	Black (Caribbean, African)	12	6.5%
	Latino or Hispanic	10	5.4%
	Arab	5	2.7%
	Other	3	1.6%
	Missing	13	7.0%
Religion	Atheist	63	33.9%
	Christianity	63	33.9%
	Islam	11	5.9%
	Buddhism	5	2.7%
	Hinduism	2	1.1%
	Judaism	1	0.5%
	Other	28	15.1%
	Missing	13	7.0%
Work Industry	Food and Beverage	39	21.0%
	Entertainment/Media and Creative Industries	16	8.6%
	Other	38	20.4%
Manager	Majority	127	68.3%
Minority/Majority	Minority	59	31.7%
	<b>Range</b>	<b><i>M</i></b>	<b><i>SD</i></b>
Age in years	19 - 68	34.10	12.96
Number of teammates	2 – 150	11.08	13.80
Cultural Minority	0 – 17	3.75	2.90
Teammates			
Team Diversity	1 - 7	5.40	1.76
Opinion			

### 3.3 Measures

The survey included pre-existing scales to operationalize the concepts being studied. The independent variable (culturally diverse teams) was measured by computing a new variable. The new variable divided the number of team members by the number of cultures represented in the respondent's teams. Diversity outcomes (collective team identification and team innovation) and moderators (diversity-oriented leadership, transactional leadership, and MPQ traits) were all measured using a 7-point Likert scale (1= strongly disagree, 7= strongly agree).

#### 3.3.1 Collective Team Identification

*Collective Team Identification* was measured using the four highest-loaded items from Allen and Meyer (1990). These four items were chosen based on previous research (Bergami & Bagozzi, 2000; Van Der Vegt & Bunderson, 2005), which also used these four items as they capture the emotional component of social identification, which is what the research intends to understand. The items were written in the third-person narrative; however, as the researcher wished to understand the respondent's identity within the team, the items were rephrased into first-person ("feel emotionally attached to their team" became "I feel emotionally attached to my team"). The reliability analysis showed high reliability with a Cronbach's  $\alpha$  of 0.85, the mean of the scale was 4.75 with a standard deviation of 1.36.

#### 3.3.2 Team Innovation

*Team Innovation* was measured through a six-item scale from the Team Effectiveness audit developed by Bateman et al. (2002). Examples included were "Innovation is rewarded within the team" and "Problem solving is seen as an opportunity for learning and growth." The reliability analysis showed high reliability with a Cronbach's  $\alpha$  of 0.84, the mean of the scale was 5.12, with a standard deviation of 1.02.

#### 3.3.3 Diversity-Oriented Leadership

*Diversity-Oriented Leadership* was measured with a five-item scale adapted by Luu et al. (2019). Examples of the items included were "My manager is committed to a workforce representative of all segments of society" and "My manager does not value the opinion of employees of different backgrounds equally" (Luu et al., 2019, p. 313). The latter of the items mentioned were reverse scored. The reliability analysis showed high reliability with a Cronbach's  $\alpha$  of 0.82. The mean of the scale was 5.42 with a standard deviation of 1.07.

### 3.3.4 Transactional Leadership

*Transactional Leadership* was measured using six items from the Multifactor Leadership Questionnaire (MLQ) by Bass and Avolio (2000). The original scale has a total of 21 items divided into seven factors. The six items used were taken from factors five and six, as these factors represent the transactional dimensions of leadership. The original items from the MLQ were written in a first-person narrative so that the respondent could understand the type of leader they are. Because of this, the items were rephrased from first-person to third-person and regarding their manager (“I am satisfied when others meet agreed-upon standards” became “My manager is satisfied when others meet agreed-upon standards”). The reliability analysis showed reliability with a Cronbach’s  $\alpha$  of 0.61. The mean of the scale is 4.78 with a standard deviation of 0.84.

### 3.3.5 Multicultural Personality Questionnaire

*Multicultural Personality* was measured using the short form of the Multicultural Personality Questionnaire (van der Zee & van Oudenhoven, 2000; van der Zee & van Oudenhoven, 2001) validated by Hofhuis et al. (2020). The 40-item scale measures the five traits of multicultural personalities: *Cultural Empathy* (CE), *Open-mindedness* (OM), *Social Initiative* (SI), *Emotional Stability* (ES), and *Flexibility* (FX). Each trait was measured with eight items and was written in first-person. Therefore, items were rephrased so the respondent could answer based on their manager (“I am a good listener” became “My manager is a good listener”). Eight items measured each trait.

Cultural empathy refers to an individual’s capacity to comprehend and relate to the emotions of other cultures. Examples of the items are “...sets others at ease” and “...enjoys other people’s stories.” The reliability analysis showed high reliability with a Cronbach’s  $\alpha$  of 0.91, the mean of the items were 5.02, with a standard deviation of 1.10.

Openmindedness refers to having an unbiased mindset to differing cultural values and norms. Some items included “...starts a new life easily” and “...has a broad range of interests.” The reliability analysis showed high reliability with a Cronbach’s  $\alpha$  of 0.78 the mean of the items is 4.73, with a standard deviation of 0.80.

Social initiative implies a higher probability of an individual participating in social scenarios. Items included were “...leaves initiative to others to make contact,” “...finds it difficult to make contacts,” and “...is reserved,” these three items were reverse scored. The reliability analysis showed reliability with a Cronbach’s  $\alpha$  of 0.68, the mean of the items was 4.90, with a standard deviation of 0.75.



Emotional stability is characterized by the ability to remain composed in stressful situations rather than showing intense emotional reactions. To measure this, items included “...keeps calm when things don’t go well” and “...is not easily hurt,” these two items are the only ones out of the eight that were not reverse scored. The reliability analysis showed low reliability with a Cronbach’s  $\alpha$  of 0.76, the mean of the items was 4.70, with a standard deviation of 0.92.

Flexibility is needed when adapting to multicultural settings where one’s usual ways are not adaptable. To measure this trait, items included “...likes routine” and “...works according to strict rules.”. In addition, all items in this scale were reversed scored, meaning that a lower FX score correlates to higher flexibility. The reliability analysis showed high reliability with a Cronbach’s  $\alpha$  of 0.76, the mean of the items was 3.50, with a standard deviation of 0.82.

### **3.3.6 Control Variables**

Six control variables were included in the questionnaire to ensure the accuracy and reliability of the results. As the survey started with questions relating to the respondent’s team demographic, the first control variable was the industry the participant works in; this was a multiple-choice list of various industries with the option for respondents to add any that was not listed. At the end of the survey, the rest of the control variables were asked. Specifically, the gender, racial identity, religious affiliation, and level of education offered respondents to answer through multiple choice, with the option to add a choice that was not on the list; text boxes were provided to answer age.

### **3.4 Analysis**

Before beginning the analyses, further steps to clean the data took place. Default columns such as the survey start date or survey duration were deleted from the data set as these columns did not contain data crucial to the research’s hypotheses. Moreover, a normality test was done for each scale item to ensure there were no abnormalities in the data that would result in a loss of an item. All items showed normal distribution. After the scales were tested to have a Cronbach’s Alpha value of higher than 0.60, new variables were created using the compute variable function on SPSS with the MEAN command for the items that respectively comprised the following scales, diversity-oriented leadership, transactional leadership, cultural empathy, openmindedness, social initiative, emotional stability, flexibility, collective team identification and team innovation. As Chapter 3.3 mentioned,

team cultural diversity was measured by computing a new variable. These new variables were used to carry out hypotheses testing.

Because the nature of the research is mainly through the moderating effect of a leader’s MPQ or leadership style, multiple moderation regression analyses (multiple regression) will be conducted to explore the possible relationship between the various MPQ traits, two leadership styles, and diversity outcomes, namely, collective team identification and team innovation. However, all but one of the previously presented hypotheses (H1) looks at a correlation between the independent variable (team cultural diversity) and one of the diversity outcomes (collective team identification), as no moderating variable is included, a simple regression analysis is conducted to find any relationship between the two, and thus accept or disprove the hypothesis. Regression analyses are used for this research as all variables included are continuous.

### 3.4.1 Descriptive Statistics

In this brief section, an overview of the descriptive statistics of the measures previously shared and used in this research is offered (Table 3.4.1). Next, a Pearson Correlations of Measures matrix is included to show the possible correlations between the measures (Table 3.4.1.2.).

*Table 3.4.1 Descriptive statistics of measures (N= 186)*

<b>Measure</b>	<b>M</b>	<b>SD</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Cronbach’s <math>\alpha</math></b>
Diversity-Oriented Leadership	5.42	1.07	2.20	6.80	0.82
Transactional Leadership	4.78	0.84	1.33	6.50	0.61
Cultural Empathy	5.02	1.10	1.13	7.00	0.91
Openmindedness	4.73	0.80	1.38	6.75	0.78
Social Initiative	4.90	0.75	2.75	6.63	0.68
Emotional Stability	4.70	0.92	1.50	7.00	0.76
Flexibility	3.50	0.82	1.50	5.63	0.76
Collective Team Identification	4.75	1.36	1.00	7.00	0.85
Team Innovation	5.12	1.02	1.33	7.00	0.84

Table 3.4.1.2 Pearson Correlations of Measures

Measure	1	2	3	4	5	6	7	8	9
1. DOL	1	.38**	.70**	.69**	.51**	.33**	-.01	.39**	.40**
2. TL	.38**	1	.48**	.42**	.32**	.20**	-.11	.16**	.37**
3. CE	.70**	.48**	1	.75**	.56**	.32**	-.01	.36**	.37**
4. OM	.69**	.42**	.75**	1	.63**	.25**	-.01	.40**	.43**
5. SI	.51**	.32**	.56**	.63**	1	.34**	.05	.23**	.30**
6. ES	.33**	.20**	.32**	.25**	.34**	1	.18*	.05	.13
7. FX	-.01	-.11	-.01	-.01	.05	.18*	1	-.10	-.01
8. CTI	.39**	.16**	.36**	.40**	.21**	.05	-.10	1	.42**
9. TI	.40**	.37**	.37**	.43**	.30**	.13	-.01	.42**	1

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

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

## 4. Results

### 4.1. Team Cultural Diversity – Collective Team Identification

To test the direct relationship between team cultural diversity as the independent variable and collective team identification as the dependent variable, a linear regression analysis was conducted. The model was not significant,  $F(1, 185) = .03, p = .868, R^2 = .00$  ( $\neq H1$ ), and H1 is not accepted.

Table 4.3. Simple Regression analysis of the relationship between team cultural diversity and collective team identification (N= 186)

	<i>B</i>	<i>S.E.</i>	<i>t</i>	<i>p</i>
Team Cultural Diversity	-.01	.03	.17	.868

$F(1, 185) = .03, p = .868, R^2 = .00$

### 4.2. Moderation of MPQ and Leadership Styles on Team Cultural Diversity and CTI

Moderation analyses were conducted to test the moderation effects of diversity-oriented leadership (DOL), transactional leadership (TL), and all five MPQ traits (CE, ES, FX, OM, and SI) on the relationship between the independent variable, team cultural diversity, and the dependent variable, collective team identification. The independent variable, moderating variables, and the new interaction variables were standardized for the analysis. The reported effects are controlled for gender, racial identity, religious affiliation, and level of education.

None of the interaction terms showed a significant effect on the relationship between team cultural diversity and collective team identification. The outcomes of the moderation analyses are seen in Table 4.2. When using diversity-oriented leadership as the moderator, the analysis showed that the model was not significant,  $F(3, 171) = 4.47, p = .695, R^2 = .20$ , ( $\neq H2$ ), therefore H2 is not accepted. The result was similar when analyzing transactional leadership as the moderator, the model proved no significance,  $F(9, 171) = 1.55, p = .585, R^2 = .08$  ( $\neq H3$ ), therefore H3 is not accepted either. For a more in-depth look at each moderation analysis, and its significance as a moderating variable, refer to Appendix B.

Table 4.2. Outcomes of the Moderation Analyses on Team Cultural Diversity and Collective Team Identification

	<i>B</i>	<i>S.E.</i>	<i>t</i>	<i>p</i>
<b>Diversity-Oriented Leadership</b>				
Team Cultural Diversity x DOL	-.03	.09	-.9	.695
Zscore (Team Cultural Diversity)	.05	.11	.62	.536
Zscore (DOL)	.38	.10	5.25	<.001
<b>Transactional Leadership</b>				
Team Cultural Diversity x Transactional Leadership	.04	.09	.55	.585
Zscore (Team Cultural Diversity)	.00	.11	.01	.996
Zscore (Transactional Leadership)	.12	.10	1.60	.113
<b>Cultural Empathy</b>				
Team Cultural Diversity x CE	-.05	.13	-.54	.588
Zscore (Team Cultural Diversity)	.04	.11	.45	.655
Zscore (CE)	.39	.10	5.39	<.001
<b>Emotional Stability</b>				
Team Cultural Diversity x ES	-.15	.07	-1.33	.186
Zscore (Team Cultural Diversity)	-.09	.15	-.75	.453
Zscore (ES)	.08	.11	1.03	.303
<b>Flexibility</b>				
Team Cultural Diversity x FX	-.10	.08	-1.18	.239
Zscore (Team Cultural Diversity)	-.04	.11	-.41	.679
Zscore (FX)	-.12	.11	-1,57	.119
<b>Openmindedness</b>				
Team Cultural Diversity x OM	-.04	.12	-.49	.622
Zscore (Team Cultural Diversity)	.02	.10	.26	.793
Zscore (OM)	.40	.10	5.74	<.001
<b>Social Initiative</b>				
Team Cultural Diversity x SI	-.02	.13	.21	.836
Zscore (Team Cultural Diversity)	.01	.11	.09	.931
Zscore (SI)	.22	.10	2.94	.004

*N*= 186.

### 4.3. Moderation of MPQ and Leadership Styles on Team Cultural Diversity and Team Innovation

A final round of moderation analyses was conducted to accept or reject H5, H5, H6, H7, H8, and H9 and test the effects of transactional leadership (TL) and all five MPQ traits (CE, ES, FX, OM, and SI) on the relationship between the independent variable, team cultural diversity, and the dependent variable, team innovation. The independent variable, moderating variables, and the new interaction variables were standardized for the analysis. The reported effects are controlled for gender, racial identity, religious affiliation, and level of education. All but one of the interaction terms showed a significant effect on the relationship between team cultural diversity and collective team identification. The main outcomes of the moderation analyses are seen in Table 4.3.

When Social Initiative was used as the moderating effect, the model showed significance,  $F(9, 171) = 3.77, p = .032, R^2 = .17$ . The significance indicates that the relationship between team cultural diversity and team innovation depends on a leader's social initiative score. A two-way interaction was tested to see whether a leader's high SI or low SI score would have a strong positive moderation effect. In Figure 2, the moderation effect shows that diversity in culturally diverse teams with a high-SI leader leads to lower innovation, particularly with a steady decrease as team cultural diversity grows. Compared to culturally diverse teams with a low-SI leader, diversity still leads to lower innovation, but not at the rate as high-SI leaders do; nonetheless, this effect also decreases as the team's cultural diversity increases. However, as there was no significance found between the moderation of leader's SI score on the relationship between team cultural diversity and collective team identification,  $F(9, 171) = 2.24, p = .836, R^2 = .11$ , and the current analysis disproves the original assumption of the hypothesis, the hypothesis is rejected ( $\neq H9$ ). For a more in-depth look at each moderation analysis, and its significance as a moderating variable, refer to Appendix C.

Table 4.3. Main Outcomes of the Moderation Analyses on Team Cultural Diversity and Team Innovation

	<i>B</i>	<i>S.E.</i>	<i>t</i>	<i>p</i>
<b>Transactional Leadership</b>				
Team Cultural Diversity x Transactional Leadership	-.12	.06	-1.60	.118
Zscore (Team Cultural Diversity)	.11	.08	1.44	.152
Zscore (Transactional Leadership)	.37	.07	5.15	<.001
<b>Cultural Empathy</b>				
Team Cultural Diversity x CE	.06	.10	-1.72	.087
Zscore (Team Cultural Diversity)	.06	.08	.70	.484
Zscore (CE)	.38	.07	5.32	<.001
<b>Emotional Stability</b>				
Team Cultural Diversity x ES	-.07	.05	-.60	.553
Zscore (Team Cultural Diversity)	.06	.12	.50	.619
Zscore (ES)	.16	.08	2.04	.043
<b>Flexibility</b>				
Team Cultural Diversity x FX	.03	.06	.32	.753
Zscore (Team Cultural Diversity)	.09	.09	1.02	.311
Zscore (FX)	.03	.08	.41	.680
<b>Openmindedness</b>				
Team Cultural Diversity x OM	-.11	.09	-1.56	.120
Zscore (Team Cultural Diversity)	.11	.07	1.44	.153
Zscore (OM)	.43	.07	6.17	<.001
<b>Social Initiative</b>				
Team Cultural Diversity x SI	-.16	.09	-2.16	.032
Zscore (Team Cultural Diversity)	.11	.08	1.41	.161
Zscore (SI)	.31	.07	4.28	<.001

*N*= 186.

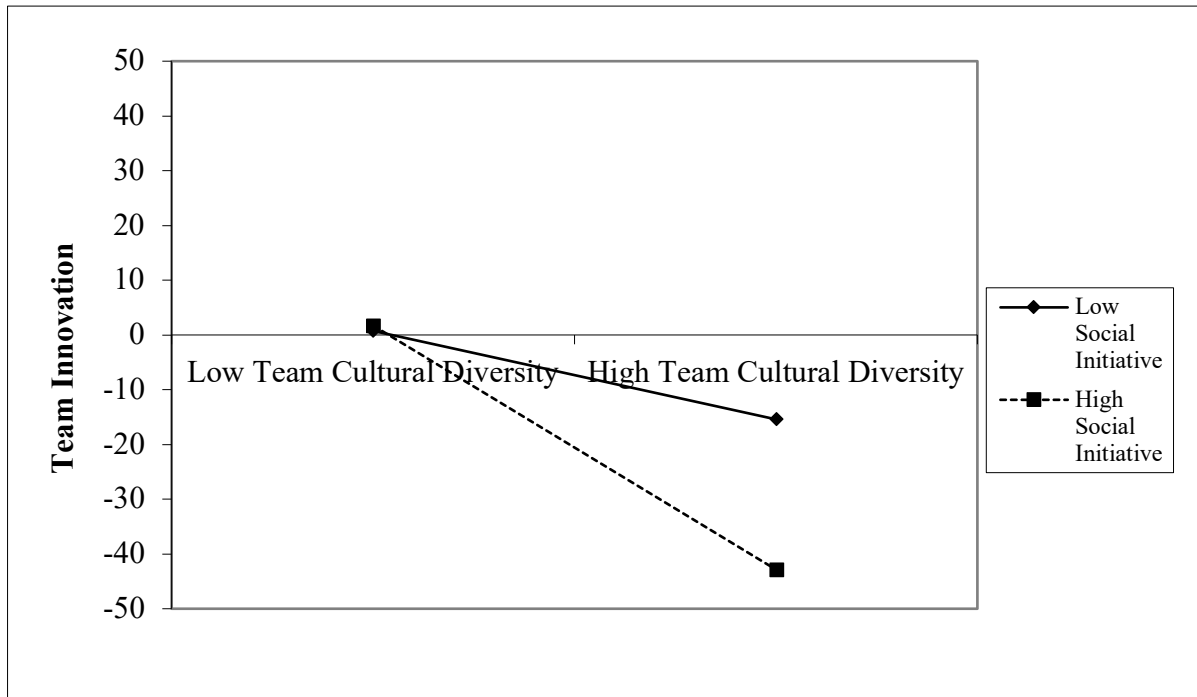


Figure 2 Graph showcasing the moderation effect of a leader's Social Initiative on the relationship between team cultural diversity and team innovation (N= 186)

#### 4.4 Key Findings

The key findings of this study based on the linear regression and moderation analyses conducted revealed varying relationships between team cultural diversity, collective team identification, team innovation, diversity-oriented and transactional leadership, and MPQ traits: cultural empathy, emotional stability, flexibility, openmindedness, and social initiative. Firstly, a linear regression showed no significant effect of team cultural diversity on collective team identification ( $B = -.01, p = .868$ ), meaning that team cultural diversity does not negatively affect collective team identification and that H1 is rejected. When moving to the moderating effects, diversity-oriented leadership did not prove to have a moderating effect on team cultural diversity and collective team identification ( $B = -.03, p = .695$ ), meaning that diversity-oriented leaders do not have an influence on the outcome of collective team identification of their culturally diverse team and H2 is rejected. However, despite not having a moderating effect, diversity-oriented leaders did prove to have a significant direct effect on collective team identification ( $B = .38, p < .001$ ). Transactional leadership did not prove to have a moderation effect on collective team identification either ( $B = .04, p = .858$ ). Therefore, H3 is rejected. By continuing to see the moderation relationship between transactional leadership and diversity outcomes, a moderation analysis showed once more that transactional leadership does not have a moderating impact on the relationship between



team cultural diversity and team innovation ( $B = -.12, p = .118$ ), resulting in the rejection of H4. It is worth mentioning that the direct relationship between transactional leadership and team innovation did prove to be strongly significant ( $B = .37, p = <.001$ ).

Cultural empathy as a moderator did not show any significance in the relationship between team cultural diversity and collective team identification ( $B = -.05, p = .588$ ). However, it was almost close to significantly moderating team cultural diversity and innovation ( $B = .06, p = .087$ ). However, as H5 wanted to (dis)prove cultural empathy's moderation effect on both diversity outcomes, H5 was rejected. Cultural empathy did show strong direct significance towards both collective team identification ( $B = .39, p = <.001$ ) and team innovation ( $B = .38, p = <.001$ ). Emotional stability did not yield any significant moderation effects on the relationship between team cultural diversity and collective team identification ( $B = -.15, p = .186$ ) or team innovation ( $B = -.07, p = .553$ ), and as such, H6 is rejected. In contrast to its lack of moderating effect, emotional stability displayed a significant direct effect on team innovation ( $B = .16, p = .043$ ). The moderation analyses revealed that flexibility did not demonstrate a significant impact when considered as a moderating factor between team cultural diversity and collective team identification ( $B = -.10, p = .239$ ) or team innovation ( $B = .03, p = .753$ ), and therefore H7 is rejected.

Continuing with the final moderating variables, the inclusion of openmindedness as a moderator did not yield any significant effects on the relationship between team cultural diversity and collective team identification ( $B = -.04, p = .662$ ) or team innovation ( $B = -.11, p = .120$ ), and as such, H8 is rejected. Although openmindedness did not exhibit a moderating effect, it did demonstrate a strong direct effect on collective team identification ( $B = .40, p = <.001$ ) and team innovation ( $B = .31, p = <.001$ ). The final moderating variable, social initiative, did not show any strong moderating relationship between team cultural diversity and collective team identification ( $B = -.02, p = .836$ ); however, it did show a significant moderating effect on team innovation ( $B = -.16, p = .032$ ). Despite this finding, as H9 wanted to prove that social initiative would have a strong moderation effect on both CTI and team innovation, it must be rejected. The social initiative did, however, prove to have substantial direct effects on both collective team identification ( $B = .22, p = .004$ ) and team innovation ( $B = .31, p = <.001$ ). The significant direct effects which have been shared in this section show that the respective leadership styles or MPQ traits have a direct effect on the diversity work outcomes regardless of the level of cultural diversity in the team.

## **5. Discussion & Conclusion**

The research conducted and presented aimed to investigate the moderating effect of a leader's MPQ traits and leadership styles (diversity-oriented leadership and transactional leadership) on the relationship between team cultural diversity and diversity outcomes, specifically collective team identification and team innovation. The results provided insights into the potential benefits organizations could consider when hiring or promoting a leader for culturally diverse teams to ensure higher collective team identification and team innovation rates. Therefore, the research question was presented as such: How do a leader's MPQ traits and leadership styles moderate the relationship between team cultural diversity and diversity outcomes?

To reach an answer to the research question, previous research on the key concepts and their relation to diversity was considered to formulate the nine hypotheses, which were presented in Chapter 2. Through designing and publishing an online survey sent out internationally, 186 responses were used for the analysis. The final chapter of this research includes a summary of the findings presented in Chapter 4 and the theoretical implications, followed by practical implications, limitations of the study and suggestions for future research.

### **5.1. Summary of Findings and Theoretical Implications**

The present study aimed to examine whether leadership style or multicultural personality traits could predict how well culturally diverse teams recorded collective team identification and team innovation. Based on the findings, diversity-oriented and transactional leadership did not significantly predict any diversity work outcomes. The same was found with all the multicultural personality traits and collective team identification, and only one of the five traits predicted a significant effect on team innovation.

Before understanding why no moderating effects were found, the lack of a significant direct effect without a moderator can also give us insight into moderators' role in the relationship between team cultural diversity and collective team identification. Team cultural diversity was found to have no significant effect on collective team identification, which not only correlates with the assumptions made in the theoretical framework but also the findings of previous research, which suggested the difficulty individuals may feel with identifying with a diverse team (Scott, 1997; Chattopadhyay, 1999; Van der Vegt et al., 2003). This means that while CTI has acted as a positive moderator between team diversity and work

outcomes (Kearney et al., 2009; Shemla & Wegge, 2018), team cultural diversity cannot stand alone in creating a direct positive effect with CTI.

The two leadership styles (diversity-oriented and transactional) did not show significant moderating values towards collective team identification, showcasing that leadership styles are neither successful nor unsuccessful in bringing out high levels of collective team identification in culturally diverse teams. It was expected that a strong influence would be found with diversity-oriented leadership, as diversity-oriented leaders can create a work environment where employees are engaged with their work and increase knowledge-sharing behaviors (Lee et al., 2020; Luu et al., 2019). This finding confirms the results of the study done by Moldogaziev and Silvia (2015), which found that diversity-oriented leadership was not associated with affective organizational commitment. Despite not having a strong moderating influence, diversity-oriented leadership did prove to have a strong direct effect on CTI. As a result, regardless of how much cultural diversity is in a team, diversity-oriented leadership does have a strong direct significant effect. This finding suggests that teams exhibit higher levels of CTI when having a diversity-oriented leader.

Transactional leaders were also found not to have any moderating effect on either collective team identification or team innovation. However, this was expected as previous studies have shown that transactional leadership has a less positive effect on diversity work outcomes (Aboramanda & Kundi, 2020; Pieterse et al., 2010). The result that was found for the moderating effect of transactional leadership and CTI could be explained by how transactional leaders work; unlike diversity-oriented leaders who create engaging work environments, transactional leaders rely on incentives and consequences of their employee's performance (Hood, 2003) encouraging them to focus on personal wins rather than team wins (Lord et al., 1999) and resulting in employees being more competitive than collaborative (Aboramanda & Kundi, 2020). This type of behavior would not be compatible with collective team identification, in which employees see themselves working together as part of a common entity (Van der Vegt & Bunderson, 2005).

However, the result of transactional leadership's negative significant moderation effect on team innovation does not come as a total surprise. As mentioned, transactional leaders rely on incentives and let their employees know what goal needs to be achieved and what they can receive once it is done. For this reason, team members may want to reach the goal as fast as possible without thinking of new avenues to take on the way, which might make future processes easier or save the budget on another project. Nonetheless, this result could be explained by the level of diversity studied. Surface-level diversity (nationality, race,

ethnicity) was found to have a negative association with team innovation in culturally diverse teams as opposed to deep-level diversity (Wang et al., 2019). Although the results of the moderating relationships were expected, an unexpected direct significant effect of transactional leaders was seen on team innovation.

The direct effect of transactional leadership within team innovation was stronger than that of CTI. It contradicted the findings by Pieterse et al. (2010), which found that transactional leadership had a strong negative relationship with innovative behavior. The direct significant effect may be explained by the same reason for the lack of a moderation relationship: the straightforward style of transactional leaders. Reach the goal and get the reward. For this reason, teams with a transactional leader may experience more freedom to test different working methods to achieve the shared goal their leader shared with them. However, in Pieterse, et al.'s (2012) study, the relationship between transactional leadership and innovation was less strong when the moderation of psychological empowerment was brought in. This finding suggests that a three-way moderation would improve the relationship to achieve a significant moderating effect of transactional leadership and team innovation within culturally diverse teams. This argument is further fueled by studies that have shown that transactional leaders tend to work towards diversity practices and initiatives and make use of diversity training (Hood, 2003; Ng & Sears, 2012), and therefore, the suggested additional moderator could be the multicultural personality traits.

None of the multicultural personality traits showed significant moderation effects toward collective team identification, which contradicts the assumptions introduced in the theoretical framework. As a result, a leader's multicultural personality traits do not affect the level of CTI within a culturally diverse team. However, the significant direct effects do show that there is an influence. Emotional stability and flexibility produced the most unexpected findings as the only MPQ traits that did not directly affect CTI significantly. Due to the lack of research on emotional stability and diversity work outcomes, the non-direct effect must be examined through the lens of the few studies which looked at emotional intelligence. Erkutlu and Chafra (2012) found that a leader's emotional intelligence positively increased team empowerment and proactivity, which led to the current study's aim of replicating the same outcome with emotional stability and collective team identification.

Nevertheless, emotional stability results contradict the studies on emotional intelligence. The absence of a direct effect by flexibility can be explained by the fact that perhaps leaders are unaware of how specific ways of working can seldomly be applied to new cultural working environments (van der Zee & van Oudenhoven, 2000), and that while they

may be openminded or culturally empathetic to a diverse team, they may not understand that a diverse group of people require a diverse range of working methods. These findings highlight the crucial role of a leader's cultural empathy, openmindedness, and social initiative score and the general role of multicultural personality in the relationship of team cultural diversity and collective team identification, and which traits can enhance the outcome directly regardless of the diversity of a team.

Flexibility continued to show a non-significant effect when looking at the relationship between team cultural diversity and team innovation. Contradicting to the findings by van Oudenhoven et al. (2003), which found flexibility to be a predictor of innovative work behavior, this study did not. The findings of Van Oudenhoven et al. (2003) could be explained by the fact that the study focused on expatriates in a new cultural setting. In contrast, the current study had a diverse sample size. It looked at the flexibility score of a manager on a culturally diverse team. Nevertheless, cultural empathy, emotional stability, openmindedness, and social initiative proved to be direct effects on team innovation; these findings add to the existing literature in that a leader with high scores on these traits can have a significant effect on their team's team innovation, regardless of who is on their team, benefitting the diverse group of teams.

As for the findings of multicultural personality traits and team innovation, only one trait presented itself as a significant moderator in the context of culturally diverse teams and team innovation, social initiative. Despite social initiative being a significant moderator, the relationship it proved is unexpected. Firstly, we must remember that as individuals who score high on social initiative are more proactive in approaching new situations, it was assumed that they could benefit from the creative process during innovation (van der Zee & van Oudenhoven, 2013). Therefore it was expected that a leader scoring high on the social initiative would assist their culturally diverse teams in feeling comfortable trying something new by being open and proactive (van der Zee & van Oudenhoven, 2013). However, the finding proved a different view. The results showed that cultural diversity in teams with a high-SI leader leads to lower team innovation. This finding contradicts that of Escrig-Tena et al. (2018) and Amo (2006), in which employee proactivity facilitated and had a significant relationship with innovation; in the case of this study, a leader's low social initiative shows that cultural diversity in teams, leads to low team innovation as well, but still at a lesser negative rate than high-SI leaders. While this study contributes to current literature with the findings of a moderation effect from SI on team innovation, it also brings some contradiction on the lack of SI's moderation effect on collective team identification. As social initiative is

the one trait directly linked to relationship building, it is surprising that this would not be shown in the relationship with CTI, which encompasses the relationship one experiences within their team (van der Zee & van Oudenhoven, 2013).

This study provides several contributions to existing literature. Firstly, it offers new insights and data for the reliability of diversity-oriented and transactional leadership and multicultural personality traits in predicting diversity work outcomes within culturally diverse teams. It deepens the theoretical understanding of diversity-oriented and transactional leadership on culturally diverse teams and the lesser-researched influence of MPQ on work outcomes. Previously, literature has compared leadership styles to one another to understand the difference in their traits and their direct effect on specific work outcomes. However, both leadership styles chosen for this study had yet to be researched regarding the relationship between culturally diverse teams and their outcomes. The research has allowed us to understand the direct effect of diversity-oriented and transactional leadership on both collective team identification and team innovation but also allows us to understand that cultural diversity in a team has no impact on the outcome when having one of the two leadership styles present. At the same time, it has now been proven which traits directly affect diversity work outcomes and which traits have no direct effect at all have been brought to light.

## **5.2. Practical Implications**

Aside from the theoretical implications, the current research carries practical implications for leadership and human resource management. In companies with culturally diverse teams, relying solely on diversity-oriented or transactional leaders may not be the most effective approach; the same is said with relying on leaders with certain multicultural personality traits. It is advised that organizations consider a more nuanced approach when looking at promoting leaders of a culturally diverse team. Organizations should look for leaders who possess strong scores in MPQ traits of cultural empathy, openmindedness, and social initiative; the reason for highlighting these traits is that strong communication and collaboration skills must also be prioritized, and CE, OM, and SI are traits that are connected to the skills needed to facilitate constructive dialogue and teamwork among culturally diverse team members. Ensuring these traits in a leader can help bridge cultural differences and promote synergy within the team resulting in higher and more positive outcomes with team innovation and collective team identification. While looking at these specific skill sets, it could also be worth it for organizations to consider other leadership styles that academia has

researched thoroughly, such as transformational, in their pursuit of finding the right fit for culturally diverse teams.

Although the study showed the direct effects of MPQ traits and leadership styles and the negative moderation of high-SI scores, it would benefit the organization and its culturally diverse teams to ensure that leaders are trained in intercultural competencies. By doing so, leaders are supported in the pursuit of enhancing their current level of cultural competence and are then equipped with the skills necessary to lead their culturally diverse teams successfully. It can be assumed that without actively fostering a leader's leadership style or multicultural personality, the non-moderation effects will continue, where they could be solved through training. In addition to focusing on the holistic approach of leadership styles and MPQ traits, it is worth considering the world we live in and technology's role. The aftermath of COVID-19 has shown a rise in remote work, resulting in teams becoming virtual. Because of this, it would be valuable to know the impact technology has on managing culturally diverse teams and how technology can be used to support diversity and inclusion efforts and benefit from the outcomes in the workplace.

### **5.3. Limitations and Future Research**

There are various limitations to keep in mind regarding the study and its results. Firstly, there was a low completion rate. Over 250 people had opened the survey and begun taking it, but only 174 had fully completed it. Many dropped out before the 51.5% completion mark, and only 186 were included in the study. It was a lower response rate than desired, but the survey took approximately 10-15 minutes. As most respondents may have opened the link on their phones, the survey could have seemed tedious to complete in a short time. The survey could have been shortened by removing the job satisfaction scale and possibly only looking at one leadership style to get the most out of respondents. By collaborating with companies with multicultural teams, future researchers would have access to a larger pool of respondents in one place rather than needing to utilize purposive sampling and, eventually, snowball sampling. Collaborating with organizations could also give way to opening research on how different industries manage cultural diversity and which are more successful. There is also the limitation of quantifying team cultural diversity; some respondents may need to be made aware that their teammates represent other cultures, or they may have difficulty distinguishing the difference in the factors that the study recommended respondents consider (nationality, race, ethnicity). Therefore, it may have been more valuable to have respondents answer yes or no to the question, "Does your team include two or more

cultures?” and then examine the difference between the teams that answered yes and those that answered no.

As for future research, many pathways are open to be explored. Firstly, starting with collecting more understanding of this study’s findings. It is a massive implication for future researchers when studying this further that one of the traits (social initiative) has a strong negative moderation effect on the level of team innovation in culturally diverse teams. Especially when considering that the MPQ focuses on multicultural settings. Such a finding means that instead of relying on concepts comparable to social initiative (such as proactivity, which this study made use of), more in-depth research should be conducted to understand what it means to have a high-social initiative score, especially for a leader of a culturally diverse team. By conducting more research on social initiative, we can begin to understand its role in the context of organizations, especially on specific work outcomes. It would also be beneficial to have more in-depth research using MPQ traits as independent variables rather than moderating variables when studying diversity work outcomes to understand how all the MPQ traits affect work outcomes, allowing for more understanding of the effect on culturally diverse teams. Despite the results of H5, part of H6, H8, and H9, which prove that MPQ traits can influence diversity outcomes, it could mean that leadership styles should be the only moderator in this relationship or vice versa, with leadership styles as the independent variable and MPQ traits as the moderating effect.

Future research should examine the three-way relationship of MPQ traits on leadership styles in the relationship between team cultural diversity and diversity outcomes. This suggestion is supported by previous research, which has shown that leadership cannot stand alone and should be moderated by other variables (Hood, 2003; Kezar & Eckle, 2008; Pearce & Conger, 2003). The argument is further supported by van der Zee and van Oudenhoven (2000), who mention that some MPQ traits may be linked to managerial success, making it attractive to research their influencer on leadership styles. Another interesting avenue not related to the study at hand could investigate the duration of leadership experience to understand if a multicultural personality could be acquired or enhanced over time and investigate if there is a difference between new leaders versus those with more seniority. By acting on the study’s limitations and delving further into the areas of future research, we can deepen our understanding of what effective leadership means in culturally diverse contexts and how we can avoid implications for organizational success.



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## Appendices

### Appendix A: Survey Questionnaire

Dear respondent,

Welcome!

Thank you for taking the time to participate in my study. I am a researcher at Erasmus University Rotterdam and would like you to fill out my survey. I am studying how leadership styles and multicultural personality traits affect team diversity outcomes (job satisfaction, innovation, collective team identification). We would like to ask you some questions about yourself and your work experience.

The survey will take around 10-15 minutes, your participation is completely voluntary, and you have the right to withdraw your consent or discontinue participation at any time without penalty. Your individual privacy will be maintained in all published and written data resulting from the study.

Please read the following consent:

I agree to voluntarily participate in this study. I am free to withdraw at any time, without giving a reason. If my answers are used in scientific publications, or are published in any other way, my data will be completely anonymous. My personal data will not be sent to third parties.

I will not use your name or other identifying information in this study, you will remain completely anonymous. I understand that I will have access to my individual scores on this or future questionnaires upon request, for the duration of the project.

This study abides by the Netherland's code of conduct for scientific research, as formulated by the VSNU – association of universities in the Netherlands ([www.vsnu.nl](http://www.vsnu.nl)), and the EU standards for privacy and data management.

By clicking 'I agree' below, I state to have read the above statements, and to participate in this study voluntarily.

If you have questions about this research, in advance, or afterwards, you can contact the responsible researcher, Nana Korsgaard, email: [631308nk@eur.nl](mailto:631308nk@eur.nl).

Thank you for your participation.

P.S. This survey contains credits to get free survey responses at SurveySwap.io.



- I agree
- I do not agree

Do you have any work experience? (Paid or unpaid, internships included)

- Yes
- No

Which industry do you work in? (please consider your most recent work experience)

- Agriculture, Forestry, Fishing, Hunting
- Computer and Electronics Manufacturing
- Energy / Utilities
- Entertainment / Media, Creative Industries
- Education
- Financial Services
- Food & Beverage
- Health Care
- Hospitality, Leisure Travel
- Information Services / Data Processing
- Life Sciences (Biomedical, pharmaceuticals, etc)
- Military
- Public / Social Service
- Retail / Ecommerce
- Transport, Logistics
- Other \_\_\_\_\_

The following questions are about your most recent work experience.

**For the next question and any that may refer 'team' please consider the immediate team you work and interact with most in your day-to-day tasks, refer to the same team for all questions that apply.**

Do you have any experience working in a team?

Yes

No

How many people are on your team? (Please include yourself and answer numerically, e.g. 5)

---

**For the next question and any that may refer to 'culture' please consider people with different ethnic, racial, religious, or nationality characteristics.**

Please answer the following questions regarding your most recent work experience.

Does your team represent two or more cultures? (Please include yourself)

Yes

No

**For the next question and any that may refer to 'culture' please consider people with different ethnic, racial, religious, or nationality characteristics.**

How many cultures are represented? (Please include yourself and answer numerically, e.g. 5)

---

How many people in your team are part of a cultural group that is different than the majority culture in the country in which you work? (Please include yourself if applicable and please answer numerically, e.g. 5)

---

Please choose on the scale from strongly disagree to strongly agree based on the extent you agree with the following statement.

	Strongly Disagree	Disagree	Somewhat Disagree	Neither agree nor disagree	Somewhat Agree	Agree	Strongly Agree
My team is culturally diverse	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**For the following sets of questions, and moving forward, whenever 'manager' is mentioned, please refer to the person you report directly to.**

What is the gender of your manager?

- Female
- Male
- Non-Binary
- Prefer not to say
- Other \_\_\_\_\_

To the best of your knowledge is your manager part of the cultural majority or cultural minority of the country in which you work? (Consider the following: ethnicity, race, religion, and/or nationality)

- Majority
- Minority

The following part are questions about job satisfaction, please consider your most recent job experience. Please choose on the scale from strongly agree to strongly disagree based on the extent you agree with the following statements.

	Strongly Disagree	Disagree	Somewhat Disagree	Neither agree nor disagree	Somewhat Agree	Agree	Strongly Agree
I feel very satisfied with my present job	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Most days I am enthusiastic about my work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Each day at work seems like it will never end	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I find real enjoyment in my work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I consider my job to be rather unpleasant	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

The following part are questions about collective team identification, please consider your most recent job experience. Please choose on the scale from strongly disagree to strongly agree based on the extent you agree with the following statements.

	Strongly Disagree	Disagree	Somewhat Disagree	Neither agree nor disagree	Somewhat Agree	Agree	Strongly Agree
I feel emotionally attached to my team	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel a strong sense of belonging to my team	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel as if the team's problems are my own	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel like part of the family in my team	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

The following part are questions about team innovation, please consider your most recent job experience. Please choose on the scale from strongly disagree to strongly agree based on the extent you agree with the following statements.

	Strongly Disagree	Disagree	Somewhat Disagree	Neither agree nor disagree	Somewhat Agree	Agree	Strongly Agree
Members of the team are encouraged to try new work methods or introduce new services	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The team is involved in new developments relating to their work from the start	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Innovation is rewarded within the team	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Problems relating to our work are quickly identified	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Once identified the team is quick to address a problem	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Problem solving is seen as an opportunity for learning and growth	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**For the following sets of questions, and moving forward, whenever 'manager' is mentioned, please refer to the person you report directly to.**

The following part are questions about diversity-oriented leadership, please consider the manager of the team you answered questions about. Please choose on the scale from strongly disagree to strongly agree based on the extent you agree with the following statements.

	Strongly Disagree	Disagree	Somewhat Disagree	Neither agree nor disagree	Somewhat Agree	Agree	Strongly Agree
My manager is committed to a workforce representative of all segments of society.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My manager works well with employees of different backgrounds.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel that my manager does a good job of managing people with diverse backgrounds.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My manager asks for the input of employees that belong to different demographic and expertise groups.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My manager does not value the opinion of employees of different backgrounds equally.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

The following part are questions about transactional leadership, please consider the manager of the team you answered questions about. Please choose on the scale from strongly disagree to strongly agree based on the extent you agree with the following statements.

	Strongly Disagree	Disagree	Somewhat Disagree	Neither agree nor disagree	Somewhat Agree	Agree	Strongly Agree
My manager tells me what to do if I want to be rewarded for my work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My manager is satisfied when I meet agreed-upon standards	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My manager provides recognition/rewards when I reach my goals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
As long as things are working, my manager does not try to change anything	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My manager calls to attention what I can get for what I accomplish	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My manager tells me the standards I need to know to carry-out my work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



The following part are questions about the multicultural personality traits of your most recent manager. Please choose on the scale from strongly disagree to strongly agree based on the extent you agree with the following statements.

	Strongly Disagree	Disagree	Somewhat Disagree	Neither agree nor disagree	Somewhat Agree	Agree	Strongly Agree
My manager pays attention to the emotions of others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My manager works according to strict rules	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My manager takes the lead	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My manager worries	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My manager tries out various approaches	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My manager is a good listener	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My manager works according to plan	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My manager leaves	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

initiative to  
others to  
make  
contact

My  
manager  
gets upset  
easily

My  
manager  
looks for  
new way to  
attain their  
goals.

The following part are questions about the multicultural personality traits of your most recent manager. Please choose on the scale from strongly disagree to strongly agree based on the extent you agree with the following statements.

	Strongly Disagree	Disagree	Somewhat Disagree	Neither agree nor disagree	Somewhat Agree	Agree	Strongly Agree
My manager senses when others get irritated	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My manager works according to strict scheme	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My manager finds it difficult to make contacts	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My manager is nervous	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My manager starts a new life easily	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My manager gets to know others profoundly	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My manager looks for regularity in life	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My manager takes initiative	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My manager is apt to feel lonely	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My manager likes to imagine solutions to problems	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

The following part are questions about the multicultural personality traits of your most recent manager. Please choose on the scale from strongly disagree to strongly agree based on the extent you agree with the following statements.

	Strongly Disagree	Disagree	Somewhat Disagree	Neither agree nor disagree	Somewhat Agree	Agree	Strongly Agree
My manager enjoys other people's stories	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My manager likes routine	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My manager is inclined to speak out	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My manager keeps calm when things don't go well	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My manager is a trendsetter in societal developments	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My manager notices when someone is in trouble	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My manager wants predictability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My manager is often the driving force behind things	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My manager is insecure	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My manager has a feeling for what's appropriate in a culture	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

The following part are questions about the multicultural personality traits of your most recent manager. Please choose on the scale from strongly disagree to strongly agree based on the extent you agree with the following statements.

	Strongly Disagree	Disagree	Somewhat Disagree	Neither agree nor disagree	Somewhat Agree	Agree	Strongly Agree
My manager sympathizes with others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My manager functions best in a familiar setting	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My manager makes contacts easily	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My manager is under pressure	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My manager seeks people from different backgrounds	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My manager sets others at ease	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My manager has fixed habits	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My manager is reserved	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My manager is not easily hurt	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My manager has a broad range of interests	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

What is your gender?

- Male
- Female
- Non-binary
- Prefer not to say
- Other \_\_\_\_\_

In which country do you live? (example: Kenya, Denmark, Canada, etc.)

\_\_\_\_\_

Which national passport do you hold? (If dual, please write the second on the next question)  
(example: Kenya, Denmark, Canada, etc.)

\_\_\_\_\_

Which second national passport do you hold? (Only answer if you hold dual-nationality)  
(example: Kenya, Denmark, Canada, etc.)

\_\_\_\_\_

Which racial group do you identify as?

- Alaskan Native
- Arab
- Asian
- Black (Caribbean, African)
- Caucasian/White
- Indegenous American
- Latino or Hispanic
- Mixed
- Pacific Islander
- Other \_\_\_\_\_

What is your religious affiliation?

- Islam
- Christianity
- Judaisim
- Atheist
- Hinduism
- Buddhism
- Other \_\_\_\_\_

What is your age? (Please answer numerically e.g. 18)

\_\_\_\_\_

What is your highest level of education achieved?

- High School Diploma
- Associates Degree
- Bachelor's Degree
- Master's Degree
- Doctor of Philosophy (PhD)
- Doctorate (Dr)
- Other \_\_\_\_\_

Do you have any additional comments or remarks?

\_\_\_\_\_

If you'd like to stay up-to-date with the thesis and its results, please fill your email here! (By filling your email, you are no longer anonymous to the researcher. Your email will not be shared with any other companies or persons beside the researcher)

\_\_\_\_\_



## Appendix B: Moderation Analyses on Collective Team Identification

Appendix B.1. Moderation analysis of diversity-oriented leadership on collective team identification (N= 186)

	<i>B</i>	<i>S.E.</i>	<i>t</i>	<i>p</i>
Team Cultural	-.03	.09	-.9	.695
Diversity x DOL				
Zscore (Team Cultural Diversity)	.05	.11	.62	.536
Zscore (DOL)	.38	.10	5.25	<.001

$F(9, 171) = 4.47, p = .695, R^2 = .20$

Appendix B.2. Moderation analysis of transactional leadership on collective team identification (N= 186)

	<i>B</i>	<i>S.E.</i>	<i>t</i>	<i>p</i>
Team Cultural Diversity x Transactional Leadership	.04	.09	.55	.585
Zscore (Team Cultural Diversity)	.00	.11	.01	.996
Zscore (Transactional Leadership)	.12	.10	1.60	.113

$F(9, 171) = 1.55, p = .585, R^2 = .08$

Appendix B.3. Moderation analysis of leader's CE score on collective team identification (N= 186)

	<i>B</i>	<i>S.E.</i>	<i>t</i>	<i>p</i>
Team Cultural	-.05	.13	-.54	.588
Diversity x CE				
Zscore (Team Cultural Diversity)	.04	.11	.45	.655
Zscore (CE)	.39	.10	5.39	<.001

$F(9, 171) = 4.77, p = .588, R^2 = .21$

Appendix B.4. Moderation analysis of leader's ES score on collective team identification (N = 186)

	<i>B</i>	<i>S.E.</i>	<i>t</i>	<i>p</i>
Team Cultural	-.15	.07	-1.33	.186
Diversity x ES				
Zscore (Team	-.09	.15	-.75	.453
Cultural				
Diversity)				
Zscore (ES)	.08	.11	1.03	.303

$F(9, 171) = 1.50, p = .186, R^2 = .08$

Appendix B.5. Moderation analysis of leader's FX score on collective team identification (N= 186)

	<i>B</i>	<i>S.E.</i>	<i>t</i>	<i>p</i>
Team Cultural	-.10	.08	-1.18	.239
Diversity x FX				
Zscore (Team	-.04	.11	-.41	.679
Cultural				
Diversity)				
Zscore (FX)	-.12	.11	-1,57	.119

$F(9, 171) = 1.69, p = .239, R^2 = .09$

Appendix B.6. Moderation analysis of leader's OM score on collective team identification (N= 186)

	<i>B</i>	<i>S.E.</i>	<i>t</i>	<i>p</i>
Team Cultural	-.04	.12	-.49	.622
Diversity x OM				
Zscore (Team	.02	.10	.26	.793
Cultural				
Diversity)				
Zscore (OM)	.40	.10	5.74	<.001

$F(9, 171) = 5.23, p = .622, R^2 = .23$

Appendix B.7. Moderation analysis of a leader's SI score on collective team identification (N= 186)

	<i>B</i>	<i>S.E.</i>	<i>t</i>	<i>p</i>
Team Cultural	-.02	.13	.21	.836
Diversity x SI				
Zscore (Team Cultural Diversity)	.01	.11	.09	.931
Zscore (SI)	.22	.10	2.94	.004

$F(9, 171) = 2.24, p = .836, R^2 = .11$

## Appendix C: Moderation Analyses on Team Innovation

Appendix C.1. Moderation analysis of transactional leadership on team innovation (N= 186)

	<i>B</i>	<i>S.E.</i>	<i>t</i>	<i>p</i>
Team Cultural Diversity x Transactional Leadership	-.12	.06	-1.60	.118
Zscore (Team Cultural Diversity)	.11	.08	1.44	.152
Zscore (Transactional Leadership)	.37	.07	5.15	<.001

$F(9, 171) = 4.46, p = .118, R^2 = .20$

Appendix C.2. Moderation analysis of leader's CE score on team innovation (N= 186)

	<i>B</i>	<i>S.E.</i>	<i>t</i>	<i>p</i>
Team Cultural Diversity x CE	.06	.10	-1.72	.087
Zscore (Team Cultural Diversity)	.06	.08	.70	.484
Zscore (CE)	.38	.07	5.32	<.001

$F(9, 171) = 4.96, p = .087, R^2 = .22$

Appendix C.3. Moderation analysis of leader's ES score on team innovation (N= 186)

	<i>B</i>	<i>S.E.</i>	<i>t</i>	<i>p</i>
Team Cultural Diversity x ES	-.07	.05	-.60	.553
Zscore (Team Cultural Diversity)	.06	.12	.50	.619
Zscore (ES)	.16	.08	2.04	.043

$F(9, 171) = 1.51, p = .553, R^2 = .08$

Appendix C.4. Moderation analysis of leader's FX score on team innovation (N= 186)

	<i>B</i>	<i>S.E.</i>	<i>t</i>	<i>p</i>
Team Cultural Diversity x FX	.03	.06	.32	.753
Zscore (Team Cultural Diversity)	.09	.09	1.02	.311
Zscore (FX)	.03	.08	.41	.680

$F(9, 171) = 1.12, p = .753, R^2 = .06$

Appendix C.5. Moderation analysis of leader's OM score on team innovation (N= 186)

	<i>B</i>	<i>S.E.</i>	<i>t</i>	<i>p</i>
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Team Cultural Diversity x OM	-.11	.09	-1.56	.120
Zscore (Team Cultural Diversity)	.11	.07	1.44	.153
Zscore (OM)	.43	.07	6.17	<.001

$F(9, 171) = 6.10, p = .120, R^2 = .25$

*Appendix C.6. Moderation analysis of leader's SI score on team innovation (N= 186)*

	<i>B</i>	<i>S.E.</i>	<i>t</i>	<i>p</i>
Team Cultural Diversity x SI	-.16	.09	-2.16	.032
Zscore (Team Cultural Diversity)	.11	.08	1.41	.161
Zscore (SI)	.31	.07	4.28	<.001

$F(9, 171) = 3.77, p = .032, R^2 = .17$