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HONORS THESIS

Supervisor Gender, Culture and Employee Creativity: The Mediating Role of Interaction Frequency

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ABSTRACT

Even though women have consistently proved that they excel through transformational leadership styles (Eagly, et al., 2003; Eagly & Johannesen-Schmidt, 2001), a type of leadership that drives creativity in individuals, they remain underrepresented in organizations globally (Michalidis, et al., 2012). Thus, it is important to understand how creativity is influenced by leadership, and how leadership is influenced by gender and frequency of supervisor-employee interaction. This study utilizes a self-reporting survey which was distributed to several companies involved in federal direct investment within China. The countries accounted for in the study were Germany, Japan, and South Korea, and results will focus on leaders and subordinates within these organizations and their country of origin, creativity scores, and leadership styles. It is predicted that Germany, representing Western culture, will positively impact employee creativity, while South Korea and Japan, representing Eastern culture, will negatively impact employee creativity. Additionally, constant with social role theory and transformational leadership styles, it is presumed that female supervisors, compared to male supervisors, will positively influence employee creativity. Lastly it is expected that due to their transformative leadership styles, female supervisors will encourage more supervisor-employee interaction, which in turn helps foster greater employee creativity. This work seeks to contribute to the existing body of work because while there is an everlasting need for creativity in organizations, there is a need for more research to examine how women benefit the workplace by promoting employee creativity.

INTRODUCTION

In an increasingly complex and uncertain global environment, employee creativity has become the driving force and core capability of many companies to redefine unique and poorly understood problems, develop innovative solutions, and achieve and maintain competitive advantage (Reiter-Palmon & Illies, 2004). Accordingly, factors that enhance and inhibit employee creativity within organizations have received increasing research attention in recent years. Leadership is considered one of the key antecedents of employee creativity and organizational innovation (Hughes et al., 2018). Thus, many researchers have examined the influence of different leadership approaches (i.e., transformational, transactional, authentic, servant...etc.) on employee creativity and explored various mediating and moderating roles of team/organizational contexts (i.e., job autonomy, job complexity, innovation climate, organizational structure...etc.) and follower attributes (i.e., internal motivation, openness to experience, extroversion...etc.) in this relationship.

In addition to leadership being a key factor that influences creativity, scholars have also recognized that “creativity is culture-bound” (Kwan, et al., 2018, p.3), suggesting that individuals among different cultures have different values that can alter certain types of creative practices (Bendapudi et al., 2018; Kwan, et al., 2018). A key framework used to explore how culture inhibits or encourages creativity is Hofstede’s cultural dimensions. Among these dimensions several can be applied to the organizational environment and employee creativity. These include individualism/collectivism, power distance, uncertainty avoidance, masculinity/ femininity, and Confucian work dynamics/ long-term orientation. Moreover, depending on how a country scores on these specific values can potentially encourage or discourage individuals from expressing unique ideas for further development during the idea selection process (Harzing & Hofstede, 1996; Li, et al., 2013; Westwood & Low, 2003; Kwan, et al., 2018).

In addition to leadership styles and culture, prior research has also shown that male and female leaders can affect employee creativity differently (Maliakkal & Palmon, 2022). However, although the number of women in leadership positions is increasing worldwide

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(World Economic Forum, 2022), the mechanism through which supervisor gender influences employee creativity and innovation is poorly understood (Zuraik et al., 2020). In this paper, we extend this research frontier by investigating how a supervisor's gender influences employee creativity and the mediating role of the frequency of supervisor-employee interaction in this relationship. By drawing from social role theory and leader-member exchange (LMX) theory, we test our hypotheses on three foreign subsidiaries located in China that represent home-country cultures of Germany, Japan, and South Korea, and consequentially find empirical support for our hypotheses. Our results contribute to employee creativity and innovation literature since it is among the first to systematically propose and test the mechanism through which a supervisor's gender influence employee creativity in a cross-cultural setting.

LITERATURE REVIEW

Creativity is a complex and multidimensional construct that can be defined in a myriad of ways. As defined by Amabile (1988), “creativity is the production of novel and useful ideas by an individual or small group of individuals working together” (p.126). These unique concepts are then repurposed as the foundation for innovation (Amabile, 1988). The difference between them being that innovation encompasses the development and the successful implementation of creative ideas (Amabile, 1988). Overall, there is a consensus in the existing literature that creativity refers to something that is both unique and valuable. Consequently, creativity is vital for business success (Ghosh, 2015), and sets the foundation for organizational creativity, innovation, and competitive advantage (Eagly & Johannesen-Schmidt, 2001; Rohmann & Rowold, 2009).

As previously mentioned, culture influences creativity in an organizational context; such that cultures that foster high individualism, low power distance, and low uncertainty avoidance are more conducive to expressing and sampling unique ideas for further development (Harzing & Hofstede, 1996; Li et al., 2013; Westwood & Low, 2003, Kwan, et al., 2018). Consequently, these specific values, in line with Western culture (Kwan, et al., 2018), reduce conformity pressures and anxiety of ambiguities; thus, they support greater exploration of various and counter normative ideas and approaches (Kwan, et al., 2018). In contrast, countries in line with Eastern culture foster collectivism, high power distance, and high uncertainty avoidance and thus have a higher tendency to harmonize conflicts and to compromise contradictions by finding a middle ground (Leung et al., 2017; Kwan, et al., 2018). As a result, these cultures are less likely to reap creative benefits from their experiences because of their desire to harmonize tension and avoid conflict or contradictions.

Culture and Creativity

A distinctive element that impacts creativity is culture; a concept that is varied and often difficult to define. With that said, among various definitions, it is generally agreed that culture is learned and commonly associated with groups of people that have collectively established norms, values, shared meanings, and patterned ways of behaving (O’Reilly, 1989; Mead, et

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al., 1953; McFate, 2005; Bozeman, 1992; Boyd & Richardson, 1988; Kroeber & Kluckhohn, 1952; Birukou, et al., 2013).

The Hofstede cultural dimensions are a tool used by individuals globally to analyze and compare how individuals from different cultures behave (Hofstede, 2003). Published in the 1970's, Geert Hofstede's dimensional research provides insights into cultural variation, so that individuals can strengthen their effectiveness when interacting with people from differing countries and backgrounds (Hofstede, 2003). To analyze cultures, present in Eastern and Western countries, four of Hofstede's cultural dimensions are used as they more closely align with work-related cultural dimensions. The four dimensions include Individualism/Collectivism, Power Distance, Uncertainty Avoidance, and Masculinity/ Femininity (Wu, 2006).

The first dimension, Individualism/ Collectivism, illustrates how individuals value their groups and or organizations (Wu, 2006; Hofstede, 2003). Cultures that score high on individualism tend to focus their efforts on self-actualization and career progress within the organization, while collectivist cultures concentrate efforts towards organizational benefits instead of their own interests (Wu, 2006; Hofstede, 2003).

The second dimension, power distance, demonstrates the power inequality between leaders and subordinates. In high power distance organizations, organizational hierarchy is evident and there is a barrier separating superiors and subordinates, reducing the communication and collaboration between leaders and employees (Wu, 2006; Hofstede, 2003). In contrast, low power distance organizations tend to maintain flat organizational structure.

The third dimension, uncertainty avoidance, describes individuals' "tolerance of ambiguity" (Wu, 2006 p.34; Hofstede, 2003). In organizations that practice high uncertainty avoidance, there are written rules and practices to avoid uncertainty, while in low uncertainty avoidance organizations, there are less written rules and procedures to mitigate risk (Wu, 2006; Hofstede, 2003).

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The fourth dimension, masculinity, defines the expected role of gender in organizations. Cultures that score high on the masculinity scale illustrate a society where individuals prefer to have males in power and presume men to be effective leaders (Wu, 2006). Meanwhile, countries that score low on masculinity can be defined as feminine cultures because they represent a society where gender roles are consistent and the difference between men and women is less drastic as both genders show interest in the quality of life and the nurturement of others (An & Kim, 2007).

Lastly, in 1990, Hofstede introduced a fifth cultural dimension, Confucian work dynamics, to represent the Confucian values in Chinese society. This cultural dimension encompasses ordering relationships, thrift, persistence, and having a sense of shame; however, this cultural dimension was renamed in 2001 as Long-Term Orientation (Wu, 2006). In contrast, the opposing side to this dimension is short term orientation. Leaders who value short term orientation exhibit qualities that align with the reciprocation of greetings, favors, and gratification, and have a respect for tradition, self-consistency, and personal steadiness and stability (Hofstede & Minkov, 2010).

It is important for this study to acknowledge cultural variation because it can influence the way individuals express unique ideas for further development during the idea selection process (Harzing & Hofstede, 1996; Li, et al., 2013; Westwood & Low, 2003; Kwan, et al., 2018). In this research, two examples are presented: Western culture and Eastern culture. For this literature review, South Korea and Japan will represent Eastern culture, while Germany will represent Western culture.

South Korean culture exhibits cultural virtues that align more significantly with Confucian beliefs compared to other Asian countries (Dorfman et al., 1997). The Confucian theory values the preservation of harmonious relationships and trust and considers them critical for business activities. In addition, Confucian theory promotes respect and conformity to senior leaders, who in response accept responsibility for the well-being of future generations (Dorfman et al., 1997). Thus, consistent with the Confucian values and most Asian cultures, South Korean individuals score highly for collectivist values as individuals value the success

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of the organization over personal gains (Dorfman et al., 1997). However, while these variables promote harmony and collectivism, they also influence power distance which results in inequality among those of differing rank, control, and reputation (Dorfman et al., 1997). As for uncertainty avoidance, South Korean culture scores high, in fact they have been described as one of the most uncertainty avoiding countries across the globe (Ting & Ying, 2013). Lastly, South Korea scores low for masculinity and is considered a “feminine society” (Ting & Ying, 2013).

Like the culture present in South Korea, Stedman and Yamamura (1999), described Japan as a collectivist, high power distance, high uncertainty avoidance, and masculine country. On the Individualism/ Collectivism scale, Japan has consistently received low scores, with Chew and Putti (1995) reporting a score of 46 points, demonstrating that “Japanese individuals tend to seek advantages for their group rather than for themselves personally” (Hirokawa, et al., 2001. p.250). As for Power Distance, Chew and Putti (1995) found that Japan scored relatively high, with a score of 87.12. This score demonstrates that the Japanese traditional attitude of deferring to those of high status has remained consistent, illustrating their natural hierarchical nature (Chew & Putti, 1995). In terms of Uncertainty Avoidance, Chew and Putti (1995), reported that Japan received a high score of 92. To explain this score, Chew and Putti (1995) suggest that the Japanese demonstrate a high aversion risk which reflects an unwillingness to deal with uncertainties because of a fear of failure. In contrast to the previous dimensions which demonstrate cultural characteristics consistent with Eastern culture, Japan has received high scores on Masculinity, a quality generally found in Western cultures like Germany and the United States (Hirokawa, et al., 2001). Lastly, in common with Eastern countries, Hofstede, and Minkov (2010) found Japan ranked third on the Long-Term Orientation dimension, 22 points lower than South Korea which has a score of 100.

According to Brodbeck et al. (2002), consistent with Western culture, Germany scored low on collectivism and high on individualism. Germans demonstrate a more individualized society as they value individual achievement more highly compared to organizational achievement (Brodbeck et al., 2007; Engelen et al., 2014). In addition, individuals value self-esteem over

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group allegiance, cohesion, or practicality (Brodbeck et al., 2007). Germany also scored low on power distance (Kuchinke, 1999; Brodbeck et al., 2007). As for uncertainty avoidance, Germany scores highly; this is attributable to their dependence on structure, organization, and security (Brodbeck et al., 2002; Hofstede, 1995). However, according to Brodbeck et al. (2002), German managers think there are too many rules, regulations, and constraints in individuals lives and are perceived to be interested in reducing them. Lastly, Germany scores highly on Hofstede's masculinity scale as Germans score highly on assertiveness and low on compassion, demonstrating that German culture exhibits more confrontational relationship styles. Moreover, their interactions are usually aggressive and assertive, and the language used is generally forthright and firm (Kuchinke, 1999; Brodbeck et al., 2007). Lastly, for Hofstede's Long-Term Orientation dimension, Germany has experienced a noticeable shift towards longer term orientation styles of leadership and are now remain within the top ten countries of the for Long Term Orientation alongside South Korea and Mainland China (Hofstede & Minkov, 2010).

Studying the cultures present within Eastern and Western societies is necessary to strengthen the understanding of how culture and creativity are interrelated. This concept is further developed in Zha et al. (2006) when researchers concluded that Western culture elicits a greater creative potential compared to that of Eastern culture (Zha et al., 2006). This has been demonstrated to be related to Eastern cultural characteristics that align with collectivism, power distance, and uncertainty avoidance (Paik & Xie, 2019). Additionally, it was claimed that educational systems, parental and societal expectations, and other socio-cultural variables have been observed to impact the regularity and quality of creative ideas that a society generates (Rudowicz, 2003). It is, however, critical to note that there is no substantial evidence that one culture is inherently more creative than another, but cultures are known to vary in the extent to which they value and nurture creativity (Zha et al., 2006). This literature emphasizes the need to consider how cultural context impacts organizational culture which thus influences employee creativity. Results in several studies have illustrated how culture variations cause organizations and individuals to operate differently and value different strategies within the workplace, which often coincides with the varying styles of leadership

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(Zhou et al., 2018). This is important to note because when conducting business globally, organizational operations and strategies vary significantly and to nurture creativity and success, the cultural context needs to be understood (Zhou et al., 2018).

Leadership and Creativity

Another distinguishing factor that impacts creativity is leadership. Due to the international nature of this research study and the ambiguity of the concept of ideal leaders, it is necessary that an integrative definition of leadership be used. As a result of this specificity, a leader can be defined as one or more individuals who selects, prepares, and influences one or more follower(s) who vary in their abilities and strengths, and focuses them on the organizations missions and objectives, causing the followers to eagerly expend energy in a concentrated effort to achieve the organizations goals (Winston & Patterson, 2006).

To maintain a competitive advantage today, companies expect their employees to be able to redefine unique, poorly understood problems and develop innovative solutions. According to Reiter-Palmon and Illies (2004) to achieve these solutions, employees experience thorough and arduous cognitive processing, which can often be amplified within organizations due to ambiguous situations. Thus, to effectively develop creative solutions for organizational challenges, employees must identify, define, and construct a problem, research problem-relevant information, and generate a unique set of alternative solutions (Reiter-Palmon & Illies, 2004).

The role leadership plays in this process is significant. Leaders can promote the facilitation of creative problem solving by providing access to and supporting the sharing of knowledge and information. However, simply having access to relevant information isn't sustainable; followers also need substantial time to ensure the ideas they produce are well-considered and effective. Sufficient time is a critical factor in idea production because previous studies on problem construction, research collection, and idea generation found that increased time spent on each step in the problem-solving process has been found to improve the creativity of the final product (Reiter-Palmon & Illies, 2004).

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It must be noted, however, that to create innovative solutions to problems, subordinates need ample time. Leaders can guarantee optimal time for idea generation by recognizing the significance of creative problem solving and providing increased time by taking a proactive approach as opposed to a reactive approach (Reiter-Palmon & Illies, 2004). By planning and determining problems that are impacting an organization's growth and development in the early stage, a leader can provide their employees with more time to spend on developing solutions to problems before time becomes a critical component (Reiter-Palmon & Illies, 2004). Additionally, instructions from leaders have also been studied for their impact on problem construction, information searching, and idea generation. It's been concluded that creativity is enhanced when leaders instruct their followers to spend more time on the specific processes or to actively engage in the processes (Reiter-Palmon & Illies, 2004). Thus, leaders can assist in the creative process through instructions they give to their subordinates (Reiter-Palmon & Illies, 2004).

Considering time, support, and instruction are both critical components for creativity (Reiter-Palmon & Illies, 2004), it is necessary to observe which types of leadership foster patience and direction. Two types of leadership styles prominent in organizational culture are transformational leadership and transactional leadership. Transformational leaders are viewed as involved, both actively and emotionally, with their employees (Jung, 2001). They foster environments for growth by emphasizing values and creating a shared vision among their employees within the organization (Martin, 2015). Additionally, transformational leaders have been observed to encourage employee risk taking by challenging assumptions, approaching problems in new ways (Çekmecelioğlu & Özbağ, 2016). Thus, it has been concluded that transformational leadership promotes increased levels of creativity (Jung, 2001).

This finding can be attributable to certain characteristics and virtues of transformational leadership such as intellectual stimulation, which has been found to help encourage followers to look at problems from a different perspective (Gonzalez et al., 2012). Another key characteristic is fortitude, which combines characteristics of perseverance, patience, and

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endurance (Gonzalez et al., 2012). Overall, transformational leadership has been found to encourage creativity in groups by encouraging intellectual stimulation, promoting non-traditional thinking, and fostering a creative environment (Jung, 2001).

In contrast, transactional leadership style consists of leaders that establish norms and measures of employee behavior and then observe employees for any missteps and deviations (Jung, 2001). Within these norms, objectives are set, tasks are assigned, and expectations are clarified to ensure that employees' deliverables are up to par with the outcome that is desired (Sarros & Santora, 2001). While transactional leadership is not unsuccessful, it has been found that it is not adequate when it comes to creating meaningful change within an organization or encouraging followers to achieve at high levels (Jung, 2001). What is necessary in these instances is transformational leadership (Jung, 2001).

While transactional leadership may not encourage change as successfully as transformational leadership does, it does promote just as much creativity amongst subordinates. In a study conducted in 2012 in Pakistan, researchers found that transactional leaders also promote innovative work behavior through fostering innovative working environments, similarly to that of transformational leaders (Khan et. al., 2012). The differing results of these studies emphasize the need for further research in this area, especially since transactional leadership style has not been found to generate change, but it has been found to generate creativity (Khan et. al., 2012), the predecessor to innovation, which helps implement change (Eagly & Johannesen-Schmidt, 2001; Rohmann & Rowold, 2009).

Considering the lack of women represented within the labor force (Michalidis, et al., 2012), research has been conducted to determine whether leadership style is impacted by gender, and if that has any relation to the underrepresentation of females (Herrera et al., 2012). A study conducted in 2001 by researchers at Northwestern University investigated transformational and transactional styles of male and female leaders in a large sample of managers. The comparison between female and male leaders on their leadership outcomes showed that men exceeded women on three transactional scales suggesting that male managers, relative to female managers, directed attention to their subordinates' problems and mistakes, were

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preoccupied during times of uncertainty, and waited until problems became severe before intervening. In contrast, women exceeded men on three transformational measures: the extra effort they encouraged from subordinates, the satisfaction that subordinates expressed about their leadership, and their overall effectiveness in leading (Eagly, et al., 2003).

CONCEPTUAL FRAMEWORK

Cultural Context and Employee Creativity

According to Hofstede there is significant cultural variation among countries globally so to better understand how they differ, Hofstede created five cultural dimensions that provide insights into the observed differences. Due to the nature of this study, we looked to four of these cultural dimensions: Individualism/Collectivism, Power Distance, Uncertainty Avoidance, and Masculinity/ Femininity (Wu, 2006) as they more closely align with the cultural variation present in an organizational setting. The three countries of origin described in this study include Germany, Japan, and South Korea. Germany represents Western culture, while Japan and South Korea represent Eastern culture. There is some, but weak, evidence that individuals from Western compared to Eastern cultures have higher creative performance (Kwan, et al., 2018). These results are difficult to interpret because creativity is a result of individual-environment interactions, as opposed to being an intrapersonal trait. For example, Nouri, et al. (2013) conducted a study measuring the creative performance of Singaporeans and Israeli's and found that the two groups did not differ in their performance when they completed the task independently. However, when asked to work collaboratively, Singaporeans compared to Israeli groups produced fewer novel ideas. The Singaporean groups also elaborated more on the usefulness, as opposed to novelty, of their ideas. One potential explanation is that when collaborating, individuals are more likely to adhere to group think and social proofing and reference the norms of their team and choose ideas that are perceived to be acceptable to other members (Kwan, et al., 2018). Consistent with the cultural dimensions, this effect is more prevalent in Eastern cultures where group, compared to individual, preferences and goals are of greater emphasis (Kwan, et al., 2018). To this end, we suggest that employee creativity will be lower in Eastern cultures compared to Western cultures because East Asian cultures have a greater tendency to harmonize conflicts and to

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negotiate challenges by finding a middle ground (Leung et al., 2017; Kwan, et al., 2018). Thus,

H1: Employee creativity will be lower in Eastern cultures compared to Western cultures.

Supervisor Gender and Employee Creativity

According to social role theory, men and women have different social roles; where men are known to display behaviors that are more assertive, competitive, decisive, and agentic, while women are known to exhibit behaviors that are nurturing, empowering, cooperative, and communal (Eagly & Wood, 2012). Prior studies suggest that these differences in social expectations for men and women subject women to a greater prejudice as a mismatch for prototypical leadership roles, negatively influencing leadership success (Hentschel et al., 2018). Research examining the effect of leader gender on employee creativity, on the other hand, has produced mixed results. For example, Zuraik et al. (2020) found that male supervisors are more effective than female supervisors in encouraging risk-taking and speed of action and achieving higher levels of employee creativity and innovation than female supervisors. On the other hand, in an experimental study, Maliakkal and Reiter-Palmon (2022) show that female leaders increased the originality of subordinates' ideas.

In this paper, we argue that the same behaviors (i.e., nurturing, empowering, cooperative, and communal) that may disadvantage women in prototypical leadership roles might help them enhance the creativity of their subordinates. Creative tasks are uncertain and ambiguous, producing frustration, fear, and anxiety in group members (Edmondson & Mogelof, 2006). In such an environment, subordinates would be reluctant to offer their ideas if they feel their leader is not tolerant or receptive to what they say (Edmondson, 1999). We argue that because female leaders are more empathetic toward their subordinates (Rego et al., 2007) and better at creating a trusting and nurturing environment (Oshagbemi & Gill, 2003), employees would feel free to propose unconventional ideas and introduce conflicting opinions without fear of reprisal, and thus overcome the fear of challenging the status quo, which in turn increases creative thought and innovative problem-solving. Moreover, female leaders offer their subordinates greater autonomy so that they are more "empowered to take initiative, participate actively, and be self-starters" (Hu, et al., 2003). That is, female supervisors' high levels of

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empathy and empowerment will likely result in increased employee creativity and innovation (Hu et al., 2003). Thus:

H2: Supervisor gender (i.e., being female) positively influences employee creativity.

Supervisor Gender and Interaction Frequency

We also suggest that women are more likely to foster a greater frequency of interaction with their subordinates because they are more prone to use an interpersonal and participative approach to leadership compared to their male counterparts (Ayman & Korabik, 2010). Furthermore, a more feminine style of leadership demonstrates characteristics such as caring and nurturance (Reuvers, et al., 2008). This is consistent with the social role theory, as previously mentioned, that proposes that leaders will behave by societal expectations about their gender roles (Reuvers et al., 2008). Women, in this respect, would be more predisposed to use transformational aspects of leadership, which often consists of individualized consideration and intellectual stimulation (Eagly & Johannesen-Schmidt, 2001; Reuvers, et al., 2008). In accordance with these findings, Fairhurst (1993) found that female leaders apply “different aligning, accommodating, and polarizing conversational patterns across differential LMX relationships” (Lee, 1999, p.419). For example, in harmony with the notion that females were more relationally concerned and skillful (Eagly & Johnson, 1990; Rosener, 1990; Lee, 1999), female leaders develop a "caregiver" role (Lee, 1999) and demonstrate individualized consideration and intellectual stimulation (Eagly & Johannesen-Schmidt, 2001). As such, in their large-scale study of 1,857 people, Anderson et al. (2006) finds that women, compared to men, tend to show greater levels of interpersonally oriented leadership behaviors, including increased oral communication and interaction. Furthermore, we suggest that relational communication that emphasizes interpersonal connections and caring on the part of the female supervisors would also help employees perceive overall organizational communication environments as open and participative and thus enhance employees' motivation for interaction. Taken together, we suggest that female supervisors' interpersonal and participative orientation toward their employees will increase the frequency of supervisor-employee interaction. Thus:

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H3: Supervisors gender (i.e., being female) positively influences frequency of supervisor-employee interaction.

Interaction Frequency and Employee Creativity

From an LMX theory perspective, Sheer (2014) suggests that work and social interactions are the two most essential components of the leader–member relationship. As described by Atwater and Carmeli (2009), LMX theory is based on leadership and exchanges between leaders and followers, and the fundamental premise behind LMX is that within work teams, various types of relationships grow between leaders and followers. LMX can be categorized into two extremes: High LMX and Low LMX. High LMX is characterized as a relationship that is high quality and mature and fosters high levels of “information exchange, mutual support, informal influence, trust, and greater negotiating latitude and input in decision influence” (Lee, 1999, p.417). In contrast, Low LMX is characterized as a low-quality relationship in which there is more “formal supervision, less support, and less trust and attention from the leader” (Lee, 1999, p.417). As reported by Tierney, et al. (1999), the quality of the LMX relationship sets the foundation for employee’s creative performance in several ways. For example, high LMX employees report that they engage in more difficult and pertinent tasks compared to their low LMX colleagues (Liden & Graen, 1980; Tierney, et al., 1999;); two conditions that have been correlated to creative performance in the workplace (Amabile & Grysiewicz, 1987; Tierney, et al., 1999). High LMX employees are also more prone to participate in job-related risk taking (Graen & Cashman, 1975; Tierney, et al., 1999), obtain more task-related resources (Graen & Scandura, 1987; Tierney, et al., 1999), and receive recognition (Graen & Cashman, 1975; Tierney, et al., 1999). The mixture of these factors indicates a receptiveness and support for employee’s creative work (Amabile, 1988; Ford, 1996; Tierney, et al., 1999). These interactions enhance idea divergence and convergence stages in employee creativity (Tierney, et al., 1999). More specifically, scholars suggest that communicating with employees regularly, exchanging valuable and relevant information, sharing knowledge, and giving feedback within a cooperative environment not only induce employees to be more expansive in their thinking and ideas (Zhou & George, 2003), but also enable them to see how their work and ideas are viewed, increase their

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attention to the task at hand, and subsequently adjust and improve their ideas, leading to not only new but also useful ideas (Stobbeleir et al., 2011). Therefore, in line with prior work, we suggest that having frequent supervisor-employee interaction increases employees' sense of responsibility and provides a balance between restrictions and freedom for creative activities, which, in turn, will result in higher levels of employee creativity (Omilion-Hodges & Ackerman, 2018). Thus:

H4: Frequency of supervisor-employee interaction positively influences employee creativity.

Supervisor Gender, Interaction Frequency and Employee Creativity

We argue that the frequency of supervisor-employee interaction mediates the relationship between female supervisors and employee creativity because social role theory suggests that women are prone to build relationships that communicate social comfort, trust, and participation, which, in turn, will foster the frequency of supervisor-employee interaction. In addition, Eagly and Johannesen-Schmidt (2001) find that women exceed men in leadership qualities of idealized influence, inspirational motivation, individualized consideration, and interpersonal support. Accordingly, we suggest that during their interactions with their employees, female supervisors are more able to communicate respectfully and appreciate employees' ideas, express concern for their feelings, inducing them to be more optimistic about the future, more confident, and more divergent in their thinking, thus increasing creative thought and innovative problem-solving. Tierney et al. (1999) also support this view, finding that employees' perceptions of leader interpersonal support were correlated to their creative output.

Moreover, we believe that via mutual interaction and conversation, female supervisors are also better able to help with the idea convergence process by exchanging valuable and relevant information with their employees, offering on-time and constructive feedback, and creating a balance between the employees' freedom and responsibilities. In support of this view Fairhurst (1993) finds that female leaders apply "different aligning, accommodating, and polarizing conversational patterns across differential LMX relationships" (Lee, 1999, p.419). To sum up, we assert that through creating an active and committed ongoing social interaction with their employees, female supervisors will be able to enhance both the divergence and

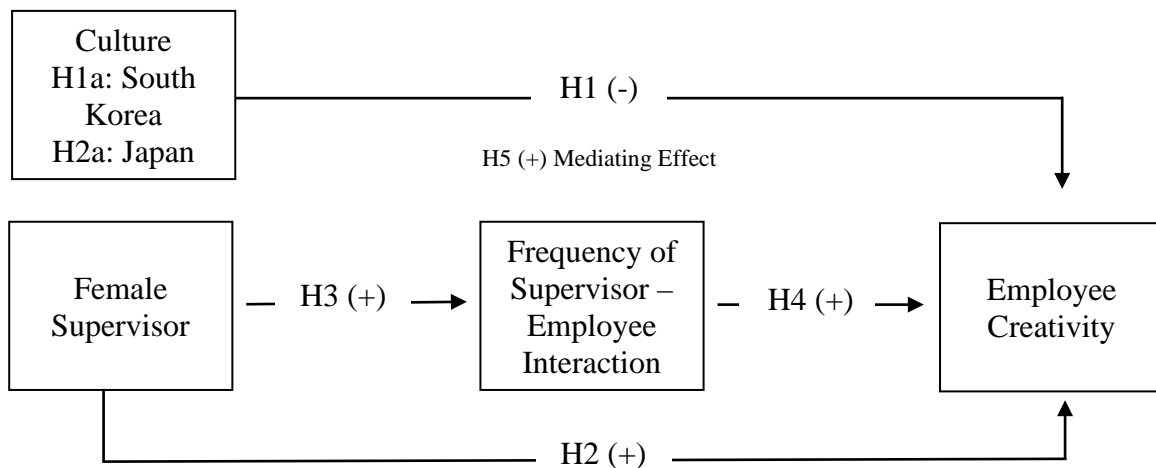
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convergence stages of ideation and foster employee creativity more compared to their male counterparts. Thus:

H5: Frequency of supervisor-employee interaction mediates the relationship between supervisors' gender (i.e., being female) and employee creativity.

Figure 1 – Conceptual Model



DATA AND METHODOLOGY

Sample and Data

The sample firms were identified from the Ministry of Commerce (MOFCOM), an executive agency of foreign direct investments (FDI) which has operated in China for over two decades. Firms that qualified for the survey have foreign employees working alongside one another in the exact office location and have been involved in innovation activities. We collected the data in two stages. First, we sent an introductory participation-request letter and summary of the proposed research to a random sample of twenty foreign subsidiaries located in the twelve economically developed providences along the east coast of China, where most of the country's FDI originates. As a result, three foreign subsidiaries agreed to participate, representing different home-country cultures, including Germany, Japan, and South Korea. All three foreign subsidiaries have operated in China for over 25 years and have been involved in innovation activities.

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We then contacted respondents from three foreign subsidiaries. Of the 500 initially contacted, 138 agreed to participate, with a 28 percent acceptance rate. Of the 138 questionnaires, 116 were usable. Among the respondents, the majority were well educated. 72 percent indicated that they had at least an undergraduate degree, and considerable knowledge and experience. The average tenure of respondents equates to 6 years, and the average age of respondents was 32 years old, and by gender, 43 percent were female, and 47 percent were male, which corresponds well with the population of foreign subsidiaries in China (Textor, 2021, A; Textor, 2021, B). While additional information on the population of all foreign subsidiaries' diverse organizational culture is unavailable, it was observed that the respondents were likely to be representative of the population. The survey developed was originally created in English, then translated into Chinese, and then back translated to ensure clarity. The Likert-type measurement scale was utilized for the constructs, adopting most of them from prior studies. Before the on-site interviews, semi-structured interviews with senior executives were constructed in a multinational corporation (MNC) to help refine key constructs and ensure the use of appropriate wording for the multicultural setting in the foreign subsidiaries. To control for non-response bias, we randomly selected 500 foreign subsidiaries from the databases provided by the China Ministry of Commerce and used an unpaired t-test to examine the mean difference between responding firms and obtained-sample firms on key firm characteristics (duration of operations and financial performance); no significant difference was found. We collected data from two separate sources. While the participants were asked to answer a set of self-assessment questions, all of them were assessed by their supervisors.

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Measures

Table 1:

Observations, Means, Standard Deviations, and Minimums and Maxes among the Study Variables.

		Descriptive Statistics				
Variable	Variable	Obs	Mean	Std. dev.	Min	Max
Employee Creativity	Dependent	116	2.90	0.71	1	4.38
Supervisor Gender (F)	Independent	116	0.27	0.44	0	1
Japan	Independent	117	0.33	0.47	0	1
South Korea	Independent	117	0.19	0.39	0	1
Germany	Independent	117	0.47	0.50	0	1
Supervisor Education	Control	117	0.93	0.25	0	1
Supervisor Tenure at Company	Control	116	9.12	4.58	1	19
Employee Gender	Control	116	0.42	0.50	0	1
Employee Education	Control	117	0.72	0.45	0	1
Employee Tenure at Company	Control	116	5.67	3.98	0.42	18
Frequency of Interaction between Supervisor and Employee (Monthly)	Mediator	116	15.58	6.64	1	20

Table 1 reports the observations, means, standard deviations, and minimums and maxes of the study variables.

Dependent Variable

The study's dependent variable is Employee Creativity, which is measured by adopting thirteen items scale from George and Zhou (2001). The supervisors were asked to answer on a scale of one to five to what extent they agreed with the statements about a specific employee who responded to other questions. This approach is consistent with the tradition in the organizational creativity literature that supervisor ratings are often used to measure creative behavior (George & Zhou, 2001; Tierney, et al., 1999). The statements focus on issues related to possessing unique perspectives, generating creative ideas, proposing new ways to solve problems, etc. All the items were loaded significantly to one factor (Cronbach's $\alpha = .92$, $M = 2.90$, $S.D. = .71$).

Independent Variable

The independent variables of this study include the Supervisor's Gender and MNC's home-country culture. The Supervisor's Gender is measured as a dummy variable where female =1 and male =0. As depicted in Table 1, 27% of supervisor respondents were female. The MNC's home-country culture is also measured as a dummy variable where we coded their

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country of origin=1, and the countries of origin that they do not identify with as =0. As illustrated in the table, 33% of respondents were Japanese, 19% were South Korean, and 47% were German.

Mediating Variable

The mediator variable, Supervisor-Employee Interaction Frequency is measured by asking employees how frequently they interacted with their supervisor. The scale used to measure this was a single select multiple-choice question. Employees were given five options: once a month, once every two weeks, once a week, twice or more a week, and daily. We created a continuous variable by converting their responses into the number of monthly interactions ranging from 1 to 20. The average number of interactions is fifteen times a month in our sample which according to the scale demonstrates that on average superiors and subordinates interact “twice or more a week”.

Control Variables

The control variables include Supervisors’ Education, Supervisors’ Tenure at the company, Employee Gender, Employee Education, and Employee Tenure at the Company. Education is measured by the number of years of formal education. Supervisors have, on average, sixteen years of education, while it is fifteen years for employees. Tenure is the number of years the person has worked for the company. The average tenure at the company for the superiors was around nine years, while for employees, it is about six. Finally, employee gender is measured as a dummy variable where 1=female and 0=male. Table 1 presents that 42% of employees were female in the sample.

Estimation Strategy

We investigated the effect of Supervisor Gender on Employee Creativity and the mediating role of Employee-Supervisor Interaction in this relationship by using mediated regression analysis with a Structural Equation Modeling (SEM command) on STATA. To start with, we only include the control variables to test their predictive power on employee creativity.

$$\text{Employee Creativity} = \alpha_i + \lambda \text{ controls} + \text{error}_i$$

We test H1....

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$$\text{Employee Creativity} = \alpha_i + \beta_1 \text{Japan} + \beta_2 \text{South Korea} + \lambda \text{controls} + \text{error}_i$$

Then, we test H2 by including the supervisor gender. We expect to find a positive relationship between supervisor gender being female and employee creativity.

$$\text{Employee Creativity} = \alpha_i + \beta_1 \text{Supervisor_Female} + \lambda \text{controls} + \text{error}_i$$

To test Hypotheses 3, we regress frequency of interaction on supervisor gender. As we described above, we expect to find a positive effect of supervisor gender on employee creativity.

$$\text{Interaction_Frequency} = \alpha_i + \beta_1 \text{Supervisor_Female} + \lambda \text{controls} + \text{error}_i$$

Finally, we regress employee creativity on supervisor gender and frequency of interaction to test H4 and H5.

$$\text{Employee Creativity} = \alpha_i + \beta_1 \text{Supervisor_Female} + \beta_2 \text{Interaction_Frequency} + \lambda \text{controls} + \text{error}$$

Table 2 reports the correlation of the study variables. As shown, there are six variables that are significantly correlated with the employees' creativity. Of the six, four are applicable to this study, Supervisor Gender, Frequency of Interaction between Supervisor and Employee, South Korea, and Germany. As depicted, employees' average creativity score is significantly and positively correlated with three variables: Germany as the country of origin, frequency of interaction, and supervisor gender. In contrast, employees' creativity is significantly and negatively correlated with South Korea as the country of origin.

The first column in Table 3 reports the effect of the control variables on Employee Creativity. Two control variables, Supervisor Education and Supervisor Tenure, have positive and significant signs out of the five control variables we include. The second column in Table 3 tests the effect of the effect of culture on employee's creativity. The coefficient on Japan and South Korea is negative and statistically significant (Japan: $\gamma = -0.31$, $p < .018$) (South Korea: $\gamma = -1.08$, $p < 0$), confirming our Hypothesis 1 that employee creativity will be greater in

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Western cultures compared to Eastern cultures. In addition, the coefficient on supervisor gender is positive and statistically significant ($\gamma = 0.31, p < 0.02$), confirming Hypothesis 2 that supervisor gender (i.e., being female) positively influences employee creativity. The third column in Table 3 tests the mediating effect of supervisor gender on supervisor-employee interaction frequency, and the coefficient of supervisor gender is positive and significant ($\gamma = 3.34, p < .02$), confirming our Hypothesis 3 that the supervisor's gender (i.e., being female) positively influences frequency of supervisor-employee interaction. Finally, column four in Table 3 tests the effect of all the variables on Employee. Based on our results, Column 4 demonstrates that the frequency of supervisor-employee interaction significantly and positively affects employee creativity ($\gamma = 0.03, p < .01$), confirming H4 that the frequency of supervisor-employee interaction positively influences employee creativity. Additionally, our independent variables continued to also be statistically significant in influencing employee creativity.

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RESULTS

Table 2: Means, Standard Deviation, and Correlation among the Study Variables

Variable	Employee Creativity	Supervisor Gender (F)	Supervisor Education	Supervisor Tenure at Company	Employee gender (F)	Employee Education	Employee Tenure at Company	Frequency of Interaction between Superior and Employee	Japan	South Korea	Germany
Employee Creativity	1										
Supervisor Gender (F)	0.28*	1									
Supervisor Education	0.09	0.30*	1								
Supervisor Tenure at Company	0.23*	0.06	(0.23)*	1							
Employee Gender (F)	0.05	0.08	0.01	0.17	1						
Employee Education	0.08	0.20*	0.20*	0.24*	0.07	1					
Employee Tenure at Company	0.21*	0.05	(0.06)	0.42*	0.14	0.16	1				
Frequency of Interaction between Supervisor and Employee	0.35*	0.14	(0.21)*	0.34*	0.04	0.01	0.14	1			
Japan	(0.01)	(0.31)*	(0.19)*	0.37*	(0.13)	0.25*	0.09	0.18*	1		
South Korea	(0.48)*	(0.14)	(0.09)	(0.63)*	(0.19)*	(0.27)*	(0.34)*	(0.31)*	(0.34)*	1	
Germany	0.39*	0.40*	0.25*	0.14	0.27*	(0.02)	0.18	0.07	(0.68)*	(0.46)*	1

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Table 3: *Employee Creativity, Supervisor Gender, and Frequency of Supervisor-Employee Interaction*

Variables	Model (1)	Model 1 (2)	Model 2 (3)	Model 3 (4)	Model 4 (5)
	Employee Creativity	Employee Creativity	Employee Creativity	Frequency of Interaction (Monthly)	Employee Creativity
Supervisor Gender (F)			0.31** (0.14)	3.34** (1.43)	0.23* (0.14)
Japan		-0.31** (0.13)	-0.18 (0.14)	1.57 (1.47)	-0.22 (0.14)
South Korea		-1.08*** (0.20)	-1.03*** (0.20)	-3.70* (1.97)	-0.93*** (0.19)
Germany		omitted	omitted	omitted	omitted
Supervisor Education	0.09* (0.05)	-0.01 (0.05)	-0.03 (0.05)	-1.30** (0.55)	0.00 (0.05)
Supervisor Tenure	0.03** (0.02)	-0.01 (0.01)	-0.02 (0.02)	0.17 (0.18)	-0.02 (0.02)
Employee Gender	-0.01 (0.14)	-0.13 (0.12)	-0.11 (0.12)	-0.23 (1.17)	-0.11 (0.11)
Employee Education	-0.01 (0.04)	-0.01 (0.04)	-0.02 (0.04)	-0.36 (0.33)	-0.01 (0.03)
Employee Tenure	0.02 (0.02)	0.01 (0.02)	0.01 (0.02)	0.00 (0.15)	0.01 (0.01)
Frequency of Interaction between Supervisor and Employee					0.03*** (0.01)
Constant	1.11 (0.86)	3.54*** (0.96)	3.84*** (0.96)	39.51*** (9.70)	3.03*** (1.01)
Obs	116	116	116	116	116
R2	0.0886	0.2778	0.3067		
Log Likelihood				-1742.5592	-1742.5592

DISCUSSION AND IMPLICATIONS

The purpose of this research was to examine the relationship between supervisor gender, culture, and employee creativity and observe what mechanism mediates this relationship. Our results demonstrate that culture impacts organizational creativity and Western cultures exhibit greater average creativity scores than Eastern cultures. More specifically, our data illustrates that South Korean and Japanese cultures weaken employee creativity compared to German culture. Additionally, our results also reveal that women in leadership positions positively influence employee creativity. This effect was driven by frequency of interaction between the supervisors and their subordinates – such that employees exhibited higher creativity scores when they participated in frequent interaction with their supervisor. By confirming hypotheses one through five, this research supports the notion that culture, and supervisor gender do influence employee creativity. The effect was seen among all three cultures proving that this is not a lone effect for one culture.

The conducted analysis supports the theory that Western culture is more creative than Eastern culture. This finding is potentially attributable to the Western hemisphere more favorably supporting cultures that foster high individualism, low power distance, and low uncertainty avoidance, which are more conducive to expressing and sampling unique ideas for further development (Harzing & Hofstede, 1996; Li et al., 2013; Westwood & Low, 2003, Kwan, et al., 2018). Accordingly, Kwan, et al. (2018) found that these Western cultural dimensions reduce conformity pressures and anxiety of ambiguities, which enables them to support greater exploration of various and counter normative ideas and approaches. In contrast, countries in line with Eastern culture tend to foster collectivism, high power distance, and high uncertainty avoidance. Moreover, Eastern cultures exhibit a high aversion to risk, which reflects an unwillingness to deal with uncertainties because of a fear of failure (Chew & Putti, 1995; Ting & Ying, 2013). Additionally, they also tend to harmonize conflicts and compromise contradictions by finding a middle ground (Leung et al., 2017; Kwan, et al., 2018). As a result, these cultures are less likely to reap creative benefits from their experiences because of their desire to harmonize tension and avoid conflict or contradictions. Our study confirms the theory that Eastern culture's alignment with collectivism, high power

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distance, and high uncertainty avoidance prevents employees from exhibiting higher levels of creativity, with Japan and South Korea significantly and negatively influencing employee creativity (Japan: $\gamma = -0.31$, $p < .018$) (South Korea: $\gamma = -1.08$, $p < 0$). As a result, companies that practice within an Eastern cultural context and want to encourage employee creativity within their organization, should consider their cultural tendencies, and attempt to mitigate the impact they have on their organizational culture. Moreover, our study specifically suggests that companies should adopt a culture that encourages frequent interaction between supervisors and their subordinates.

The results of our study also indicate that female supervisors positively influence employee creativity and the mechanism through which they influence employee creativity is frequency of interaction. As suggested by existing literature, females are known to exhibit behaviors that are nurturing, empowering, cooperative, and communal (Eagly & Wood, 2012). Due to these behavioral patterns, women are more likely to take a more interpersonal and participative approach to leadership (Ayman & Korabik, 2010), and consequently foster a higher-level of leader member exchange, which is conducive to frequent interactions between supervisors and their subordinates. Overall, the characteristics that females generally align with enable them to create a more trusting and nurturing environment (Oshagbemi & Gill, 2003), which helps build a more psychologically safe atmosphere where employees feel safe to propose unconventional ideas and introduce conflicting opinions without fear of reprisal, ultimately leading to greater employee creativity.

Moreover, this work also reveals that the frequency of supervisor-employee interaction can substantially influence employee creativity. Such that, employees that engage with their subordinates more frequently reap more significant creative benefits. This finding is supported by Tierney, al. (1999), who found that the quality of the LMX relationships sets the foundation for an employee's creative performance in multiple ways. For instance, employees that engage in frequent interaction with their supervisors, or report a high LMX relationship, state that they receive more task related resources that in turn enable them to engage in more pertinent tasks. Additionally, high LMX relationships foster high levels of trust, information

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exchange, informal influence, and greater in-put decisions (Graen & Cashman, 1975; Tierney, et al., 1999; Graen & Scandura, 1987; Liden & Graen, 1980; Lee, 1999), which enables employees to speak up, share their ideas, and receive feedback and recognition, all of which support and enhance the idea divergence and convergence stages in employee creativity (Tierney, et al., 1999).

THEORETICAL CONTRIBUTIONS

This work contributes to the current international business and management literature, in addition to the employee creativity and innovation literature by filling a research gap. This study adds to the experiential text as it is among the first to systematically propose and test the mechanism through which a supervisor's gender influence employee creativity in a cross-cultural setting.

More specifically, this study makes two theoretical contributions. First, it contributes to the management literature by linking frequency of supervisor-employee interaction to employee creativity for the first time and enhancing the understanding of female supervisor's influence on employee creativity. Prior management literature on supervisor gender and employee creativity focuses on leadership style, but these studies offer mixed results (Jung, 2001) and don't specifically study the correlation between supervisor gender and creativity, and what mediates the relationship. Second, it contributes to the international business literature by providing a robust analysis demonstrating that Eastern culture, compared to Western cultures, negatively impacts employee creativity.

PRACTICAL IMPLICATIONS

The results of this study demonstrate that global businesses should consider hiring more female superiors to not only diversify their companies but to also encourage greater interaction and facilitation of ideas between their supervisors and employees. This in turn will foster greater creativity and in turn, increase their competitive advantage in the global arena. Additionally, the results suggest that Eastern cultures that want to encourage employee creativity, should attempt to shift their employees' cultural perspective through their organizational cultural values. Moreover, they should adopt an organizational culture that is

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more aligned with Western cultural values that supports an environment of individualism, low power distance, and low uncertainty avoidance. This is suggested because previous research indicates that Western culture reduces conformity pressures, which can lead to group think, and anxiety of ambiguities which can discourage employees from engaging in greater exploration of various and counter normative ideas and approaches.

Additionally, leaders invested in improving creativity and innovation, regardless of their gender, should be conducive to promoting an environment that fosters high leader member exchange relationships that encourage frequent “information exchange, mutual support, informal influence, trust, and greater negotiating latitude and input decision influence” (Lee, 1999, p.147). These qualities have been found to set the foundation for employee creative performance in several ways (Tierney, et al., 1999). Such that, employees that reported engaging in high-leader member exchange relationships were found to receive more task related resources and recognition, engage in more difficult tasks, and were more prone to job-related risk taking (Graen & Cashman, 1975; Graen & Scandura, 1987; Tierney, et al., 1999).

These findings have significant practical implications for management practitioners regarding how to use frequent interaction between supervisors and their employees to encourage greater employee creativity. Although the application of this research has the potential to vary across different cultures, there is a core theme. The findings suggest that management practitioners should use a more participative and interpersonal approach to leadership and create time for more frequent interactions between themselves and their subordinates. Such leadership mechanisms can enhance employee creative outcomes within an organizational setting, which in turn will help companies establish effective differentiation and competitive advantage.

LIMITATIONS AND FUTURE RESEARCH

Although this research study provides significant contributions to existing literature, this data must be considered in the context of the limitations. First, this study observed three cultures as they were a part of a convenient, and readily available sample. Future exploration should analyze the moderating effect of culture on the relationship between supervisor gender and

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employee creativity. It is also advised to assess the effect of moderation using larger sample sizes with a more balanced gender ratio.

To further strengthen this work, it is crucial to include participants from different countries. When supervisor and gender are involved, one's background and culture play a critical role in people's values and virtues, and ways of behaving. It would be interesting to observe whether the results confirmed by this study are consistent among cultures globally. In addition, different countries' cultures can be investigated, and then new moderation and mediation mechanisms can be introduced into the research. This will continue to strengthen the generalizability of the effect of culture and supervisor gender on employee creativity.

Another limitation of this sample is the age of the data. Due to the nature of this study, it was necessary that we look to culturally diverse nations, however, because this study was conducted within the United States, we knew that it would be naïve to assume that we could gather data from Eastern cultures. Due to these barriers, we utilized data that was collected in 2016. Considering it has been seven years since this data was collected, it is likely that the organizational culture present in these organizations could have changed, making this data less applicable. Thus, it is suggested that a more recent study be conducted to analyze whether this data remains relevant.

CONCLUSION

In conclusion, this study examined the effects of culture and supervisor gender and the mediating effect of supervisor-employee interaction on employees' creativity. Despite the limitations, including the sample size and age of the data, it makes an important contribution to the understanding of the effect of supervisor gender on employee creativity in a cross-cultural and synchronous context. Moreover, this study demonstrates that the same behaviors (i.e., nurturing, empowering, cooperative, and communal) that disadvantage women in traditional leadership roles, in fact support them in enhancing the creativity of their subordinates. Overall, this study adds one step toward unveiling the practices through which supervisor gender and culture influence employee creativity and how frequently supervisors should interact to bring about creativity and innovation. As the global business environment

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becomes increasingly competitive, and as innovative and creative groups of individuals have become noteworthy for many successful organizations, one of the most important things that leaders and managers need to understand is how they can inspire subordinates' creative potential, and this study demonstrates that frequent supervisor-employee interaction is one way to encourage creative solutions.

APPENDICES

Appendix A – Supervisor Survey

Supervisor Survey

This survey requires you to assess the below named employee on his or her work performance in a global/international setting (i.e., collaborating with colleagues and business associates from different countries or cultural backgrounds to solve business problems). Please be candid on your assessment and answer the following questions to the best of your knowledge for this person. He or she WILL NOT see your responses.

Name of subordinate: _____

A. Duration that you have known this person: ____ years ____ months

B. On average, how often do you interact with this person?

__Once a month, __Once every two weeks, __Once a week, __Twice or more a week, ____ Daily

C. The following questions concern this person’s behavior **when working with colleagues and business associates (e.g., clients or suppliers) from other countries and cultural backgrounds.**

1. Suggests new ways to achieve goals or objectives.

Not at all characteristics of this employee		Somewhat characteristic of this employee		Very characteristic of this employee
1	2	3	4	5

2. Comes up with new and practical ideas to improve performance.

Not at all characteristics of this employee		Somewhat characteristic of this employee		Very characteristic of this employee
1	2	3	4	5

3. Searches out new technologies, processes, techniques, and/or product ideas.

Not at all characteristics of this employee		Somewhat characteristic of this employee		Very characteristic of this employee
1	2	3	4	5

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4. Suggests new ways to increase quality.

Not at all characteristics of this employee		Somewhat characteristic of this employee		Very characteristic of this employee
1	2	3	4	5

5. Is a good source of creative ideas.

Not at all characteristics of this employee		Somewhat characteristic of this employee		Very characteristic of this employee
1	2	3	4	5

6. Not afraid to take risks.

Not at all characteristics of this employee		Somewhat characteristic of this employee		Very characteristic of this employee
1	2	3	4	5

7. Promotes and champions ideas to others.

Not at all characteristics of this employee		Somewhat characteristic of this employee		Very characteristic of this employee
1	2	3	4	5

8. Exhibits creativity on the job when given the opportunity to.

Not at all characteristics of this employee		Somewhat characteristic of this employee		Very characteristic of this employee
1	2	3	4	5

9. Develops adequate plans and schedules for the implementation of new ideas.

Not at all characteristics of this employee		Somewhat characteristic of this employee		Very characteristic of this employee
1	2	3	4	5

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10. Often has new and innovative ideas.

Not at all characteristics of this employee		Somewhat characteristic of this employee		Very characteristic of this employee
1	2	3	4	5

11. Comes up with creative solutions to problems.

Not at all characteristics of this employee		Somewhat characteristic of this employee		Very characteristic of this employee
1	2	3	4	5

12. Often has a fresh approach to problems.

Not at all characteristics of this employee		Somewhat characteristic of this employee		Very characteristic of this employee
1	2	3	4	5

13. Suggests new ways of performing work tasks.

Not at all characteristics of this employee		Somewhat characteristic of this employee		Very characteristic of this employee
1	2	3	4	5

14. Willing to assist colleagues from other cultures/countries to adjust to the work environment.

Not at all characteristics of this employee		Somewhat characteristic of this employee		Very characteristic of this employee
1	2	3	4	5

15. Willing to help colleagues from other cultures/countries solve work-related problems.

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Not at all characteristics of this employee		Somewhat characteristic of this employee		Very characteristic of this employee
1	2	3	4	5

16. Willing to cover work assignments for colleagues from other cultures/countries when needed.

Not at all characteristics of this employee		Somewhat characteristic of this employee		Very characteristic of this employee
1	2	3	4	5

17. Willing to coordinate and communicate with colleagues from other cultures/countries.

Not at all characteristics of this employee		Somewhat characteristic of this employee		Very characteristic of this employee
1	2	3	4	5

Demographic Information

1. ***Age:*** _____

2. ***Gender: Male / Female***

3. ***Country of origin:*** _____

4. ***Ethnicity:*** _____

5. ***Tenure at organization:*** _____ years _____ months

6. ***Highest Education level:*** ___ *PhD* ___ *Masters* ___ *Bachelor* ___ *High School*

7. ***Number of years living in China:*** _____

8. ***Countries outside China that you have visited.***

<i>Country</i>	<i>Duration of visit (months)</i>

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- 5. **Name:** _____
- 6. **Title:** _____
- 7. **Department:** _____

Appendix B – Employee Survey

Individual Employee Survey

Part A:

The following survey asks you about your personal preferences and habits. Please read each statement carefully and choose the one that best describes you. There are NO “right” or “wrong” answers, just what is true of you.

Note: The term “culture” refers to values, norms, and beliefs of people from distinct racial, ethnic, or national backgrounds.

1. I adjust my cultural knowledge when I interact with people from different cultures

Strongly Disagree	Moderately Disagree	Disagree	Neutral	Agree	Moderately Agree	Strongly Agree
-------------------	---------------------	----------	---------	-------	------------------	----------------

2. I am conscious of the cultural knowledge I use when I interact with people from different cultures

Strongly Disagree	Moderately Disagree	Disagree	Neutral	Agree	Moderately Agree	Strongly Agree
-------------------	---------------------	----------	---------	-------	------------------	----------------

3. I am conscious of the cultural knowledge I apply in cross-cultural interactions

Strongly Disagree	Moderately Disagree	Disagree	Neutral	Agree	Moderately Agree	Strongly Agree
-------------------	---------------------	----------	---------	-------	------------------	----------------

4. I check the accuracy of my cultural knowledge when I interact with people from different cultures

Strongly Disagree	Moderately Disagree	Disagree	Neutral	Agree	Moderately Agree	Strongly Agree
-------------------	---------------------	----------	---------	-------	------------------	----------------

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5. *I enjoy interacting with people from different cultures.*

Strongly Disagree	Moderately Disagree	Disagree	Neutral	Agree	Moderately Agree	Strongly Agree
-------------------	---------------------	----------	---------	-------	------------------	----------------

6. *I enjoy living in cultures that are unfamiliar to me.*

Strongly Disagree	Moderately Disagree	Disagree	Neutral	Agree	Moderately Agree	Strongly Agree
-------------------	---------------------	----------	---------	-------	------------------	----------------

7. *I am confident that I can socialize with locals in a culture that is unfamiliar to me.*

Strongly Disagree	Moderately Disagree	Disagree	Neutral	Agree	Moderately Agree	Strongly Agree
-------------------	---------------------	----------	---------	-------	------------------	----------------

8. *I am confident that I can get accustomed to the shopping conditions in a different culture.*

Strongly Disagree	Moderately Disagree	Disagree	Neutral	Agree	Moderately Agree	Strongly Agree
-------------------	---------------------	----------	---------	-------	------------------	----------------

9. *I am sure I can deal with the stresses of adjusting to a culture that is new to me.*

Strongly Disagree	Moderately Disagree	Disagree	Neutral	Agree	Moderately Agree	Strongly Agree
-------------------	---------------------	----------	---------	-------	------------------	----------------

10. *As I learn more about other cultures, I see many irreconcilable differences between their values and ideas*

1 Not at all	2	3	4	5 To some extent	6	7	8	9 To a great extent
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11. *The more I learn about other cultures, the more tensions I see among them*

1 Not at all	2	3	4	5 To some extent	6	7	8	9 To a great extent
-----------------	---	---	---	---------------------	---	---	---	------------------------

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12. There is a limit to how far ideas from different cultures I know can be combined

1 Not at all	2	3	4	5 To some extent	6	7	8	9 To a great extent
-----------------	---	---	---	---------------------	---	---	---	------------------------

13. I feel attached to the world as a whole

Strongly Disagree	Moderately Disagree	Disagree	Neutral	Agree	Moderately Agree	Strongly Agree
-------------------	---------------------	----------	---------	-------	------------------	----------------

14. I define myself as a member of the world as a whole

Strongly Disagree	Moderately Disagree	Disagree	Neutral	Agree	Moderately Agree	Strongly Agree
-------------------	---------------------	----------	---------	-------	------------------	----------------

15. I feel close to the world as a whole

Strongly Disagree	Moderately Disagree	Disagree	Neutral	Agree	Moderately Agree	Strongly Agree
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16. Around me, I am close to often blame members of other cultural groups for their problems.

Strongly Disagree	Moderately Disagree	Disagree	Neutral	Agree	Moderately Agree	Strongly Agree
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17. Around me, conflicts among coworkers I have good relationships with often took on cultural undertones.

Strongly Disagree	Moderately Disagree	Disagree	Neutral	Agree	Moderately Agree	Strongly Agree
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18. Around me, coworkers I am close to often accused members of other cultural groups of stealing their opportunities.

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Strongly Disagree	Moderately Disagree	Disagree	Neutral	Agree	Moderately Agree	Strongly Agree
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19. *I always try hard to get along well with others.*

Strongly Disagree	Moderately Disagree	Neutral	Moderately Agree	Strongly Agree
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20. *I found it difficult to put myself in others' shoes to consider their points of view.*

Strongly Disagree	Moderately Disagree	Neutral	Moderately Agree	Strongly Agree
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21. *I usually can maintain peace of mind.*

Strongly Disagree	Moderately Disagree	Neutral	Moderately Agree	Strongly Agree
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22. *At times, my friends remark that I am too self-centered.*

Strongly Disagree	Moderately Disagree	Neutral	Moderately Agree	Strongly Agree
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23. *I try my best to maintain harmony in my family because I believe that if a family lives in harmony, all things will prosper.*

Strongly Disagree	Moderately Disagree	Neutral	Moderately Agree	Strongly Agree
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24. *When facing a dilemma, I can always arrive at a compromise.*

Strongly Disagree	Moderately Disagree	Neutral	Moderately Agree	Strongly Agree
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25. *My mind is at peace, and I have few desires.*

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Strongly Disagree	Moderately Disagree	Neutral	Moderately Agree	Strongly Agree
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26. *I am open and sincere when relating to people.*

Strongly Disagree	Moderately Disagree	Neutral	Moderately Agree	Strongly Agree
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26. *It is a virtue to tolerate everything.*

Strongly Disagree	Moderately Disagree	Neutral	Moderately Agree	Strongly Agree
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27. *It is unworthy for me to talk to or socialize with people whose educational level or social status are lower than mine.*

Strongly Disagree	Moderately Disagree	Neutral	Moderately Agree	Strongly Agree
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28. *I follow the saying that "Those who are contented are always happy" as a principle in life.*

Strongly Disagree	Moderately Disagree	Neutral	Moderately Agree	Strongly Agree
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29. *When I am interacting with others, I seldom notice whether I am giving them a hard time.*

Strongly Disagree	Moderately Disagree	Neutral	Moderately Agree	Strongly Agree
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30. *When I talk to people, I seldom notice whether I am offending them.*

Strongly Disagree	Moderately Disagree	Neutral	Moderately Agree	Strongly Agree
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31. *I easily get into conflict with other people.*

Strongly Disagree	Moderately Disagree	Neutral	Moderately Agree	Strongly Agree
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32. *When I hear two sides of an argument, I often agree with both.*

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Strongly Disagree	Moderately Disagree	Disagree	Neutral	Agree	Moderately Agree	Strongly Agree
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33. *I often find that things will contradict each other.*

Strongly Disagree	Moderately Disagree	Disagree	Neutral	Agree	Moderately Agree	Strongly Agree
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34. *I sometimes believe two things that contradict each other.*

Strongly Disagree	Moderately Disagree	Disagree	Neutral	Agree	Moderately Agree	Strongly Agree
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35. *My world is full of contradictions that cannot be resolved.*

Strongly Disagree	Moderately Disagree	Disagree	Neutral	Agree	Moderately Agree	Strongly Agree
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36. *If there are two opposing sides to an argument, they cannot both be right.*

Strongly Disagree	Moderately Disagree	Disagree	Neutral	Agree	Moderately Agree	Strongly Agree
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37. *Believing two things that contradict each other is illogical.*

Strongly Disagree	Moderately Disagree	Disagree	Neutral	Agree	Moderately Agree	Strongly Agree
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38. *I find that if I look hard enough, I can figure out which side of a controversial issue is right.*

Strongly Disagree	Moderately Disagree	Disagree	Neutral	Agree	Moderately Agree	Strongly Agree
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39. *For most important issues, there is one right answer.*

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Strongly Disagree	Moderately Disagree	Disagree	Neutral	Agree	Moderately Agree	Strongly Agree
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40. *I find that my world is relatively stable and consistent.*

Strongly Disagree	Moderately Disagree	Disagree	Neutral	Agree	Moderately Agree	Strongly Agree
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41. *When two sides disagree, the truth is always somewhere in the middle.*

Strongly Disagree	Moderately Disagree	Disagree	Neutral	Agree	Moderately Agree	Strongly Agree
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42. *When I am solving a problem, I focus on finding the truth.*

Strongly Disagree	Moderately Disagree	Disagree	Neutral	Agree	Moderately Agree	Strongly Agree
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43. *When two of my friends disagree, I usually have a hard time deciding which of them is right.*

Strongly Disagree	Moderately Disagree	Disagree	Neutral	Agree	Moderately Agree	Strongly Agree
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44. *There are always two sides to everything, depending on how you look at it.*

Strongly Disagree	Moderately Disagree	Disagree	Neutral	Agree	Moderately Agree	Strongly Agree
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Part B:

The following questions pertain to your impression of your immediate supervisor and your work environment. Again, there is no right or wrong answers. Your individual responses to these questions will NOT be shared with anyone in the company.

Name of immediate supervisor: _____

My immediate supervisor...

1. Is interested in every aspect of his/her employees' lives.

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Strongly Disagree	Moderately Disagree	Neutral	Moderately Agree	Strongly Agree
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2. *Creates a family environment in the workplace.*

Strongly Disagree	Moderately Disagree	Neutral	Moderately Agree	Strongly Agree
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3. *Consults his/her employees on job matters.*

Strongly Disagree	Moderately Disagree	Neutral	Moderately Agree	Strongly Agree
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4. *Is like an elder family member (father/mother, elder brother/sister) for his/her employees.*

Strongly Disagree	Moderately Disagree	Neutral	Moderately Agree	Strongly Agree
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5. *Gives advice to his/her employees on different matters as if he/she were an elder family member.*

Strongly Disagree	Moderately Disagree	Neutral	Moderately Agree	Strongly Agree
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6. *Makes decisions on behalf of his/her employees without asking for their approval.*

Strongly Disagree	Moderately Disagree	Neutral	Moderately Agree	Strongly Agree
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7. *Knows each of his/her employees intimately (e.g., personal problems, family life, etc.).*

Strongly Disagree	Moderately Disagree	Neutral	Moderately Agree	Strongly Agree
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8. Exhibits emotional reactions in his/her relations with the employees; doesn't refrain from showing emotions such as joy, grief, anger.

Strongly Disagree	Moderately Disagree	Neutral	Moderately Agree	Strongly Agree
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9. Participates in his/her employees' special days (e.g., weddings, funerals, etc.).

Strongly Disagree	Moderately Disagree	Neutral	Moderately Agree	Strongly Agree
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10. Tries his/her best to find a way for the company to help his/her employees whenever they need help on issues outside work (e.g., setting up home, paying for children's tuition).

Strongly Disagree	Moderately Disagree	Neutral	Moderately Agree	Strongly Agree
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11. Expects his/her employees to be devoted and loyal, in return for the attention and concern he/she shows them.

Strongly Disagree	Moderately Disagree	Neutral	Moderately Agree	Strongly Agree
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12. Gives his/her employees a chance to develop themselves when they display low performance.

Strongly Disagree	Moderately Disagree	Neutral	Moderately Agree	Strongly Agree
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13. Believes he/she is the only one who knows what is best for his/her employees.

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Strongly Disagree	Moderately Disagree	Neutral	Moderately Agree	Strongly Agree
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The following questions pertain to your work environment in general

14. The company makes it easy for people from diverse cultural and national backgrounds to fit in and be accepted.

Strongly Disagree	Moderately Disagree	Disagree	Neutral	Agree	Moderately Agree	Strongly Agree
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15. Where I work, employees are developed / advanced without regard to the racial, religious, national, or cultural background of the individual.

Strongly Disagree	Moderately Disagree	Disagree	Neutral	Agree	Moderately Agree	Strongly Agree
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16. Managers demonstrate through their actions that they want to hire and retain a culturally diverse workforce.

Strongly Disagree	Moderately Disagree	Disagree	Neutral	Agree	Moderately Agree	Strongly Agree
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17. I feel that my immediate manager/supervisor does a good job of managing people with diverse backgrounds (in terms of, race, religion, nationality, or culture).

Strongly Disagree	Moderately Disagree	Disagree	Neutral	Agree	Moderately Agree	Strongly Agree
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THANK YOU FOR YOUR PARTICIPATION!!!

Demographic Information

9. Age: _____

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10. Gender: Male / Female

11. Country of origin: _____

12. Ethnicity: _____

13. Tenure at organization: _____ years _____ months

14. Highest Education level: 1 PhD 2 Masters 3 Bachelor 4 High School

15. Number of years living in China: _____

16. Countries outside China that you have visited.

<i>Country</i>	<i>Duration of visit (months)</i>

5. Name: _____

6. Title: _____

7. Department: _____

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Sources:

Part A:

Q1-4: Metacognitive CQ;

Q5-9: Motivational CQ;

Q10-12: Cultural incompatibility.

Q13-15: Global Identity (Psych Science);

Q16-Q18: Cultural disharmony. Esses, V. M., Jackson, L. M., & Armstrong, T. L. 1998.

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Q19-31: Fanny Cheung's Chinese personality scale (Harmony)

Q32-44: Contradiction factor of the Dialectical Thinking Scale. Cite: Spencer-Rodgers, J., Srivastava, S., Boucher, H. C., English, T., Paletz, S. B., & Peng, K. (2010). The dialectical self-scale. Unpublished data, as cited in Spencer-Rodgers, J., Peng, K., Wang, L., & Hou, Y. (2004). Dialectical self-esteem and East-West differences in psychological well-being. *Personality and Social Psychology Bulletin*, 30, 1416-1432

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