The role of knowledge spillovers and cultural intelligence in enhancing expatriate employees' individual and team creativity

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ABSTRACT

Knowledge sharing is crucial for improving individual and team creativity. Workforce diversity might also be a strategic factor for increasing knowledge resources in dynamic organizations. However, knowledge spillovers between expatriate and local employees may be hampered by cultural differences. This study presents a conceptual model that examines the effect of knowledge spillovers between expatriate employees and host country national employees (HCNs) on expatriate employees' individual and team creativity. This study also examines the moderating effect of expatriate employees' individual cultural intelligence on the relationships between knowledge sharing and expatriate employees' individual and team creativity. The study uses social categorization theory to explain whether knowledge sharing between expatriate and local employees is affected by cultural factors and how this knowledge sharing influences individual and team creativity. Partial Least Squares (PLS) path modeling in SmartPLS 3.2.7 was used to empirically test the proposed hypotheses. The data were collected from 152 expatriate employees working with HCNs in different organizations in Saudi Arabia. The study shows a positive association between expatriate employees' knowledge sharing (with HCNs and other expatriate employees) and individual and team creativity. Moreover, expatriate employees' individual cultural intelligence moderates the relationship between expatriate employees' knowledge sharing with HCNs and individual and team creativity.

1. Introduction

Knowledge and creativity have become crucial for organizations to remain competitive in today's rapidly changing and dynamic business environment (Bogilovic, Cerne, & Skerlavaj, 2017; George, 2007; Lopez-Cabrales, Pérez-Luño, & Cabrera, 2009; Ogbeibu, Senadjki, & Gaskin, 2018). Creativity refers to the production of novel and useful ideas (Amabile, 1983; Ogbeibu et al., 2018; Shalley, 1991), and organizations strive to promote creativity at both individual (employee) and team levels (Pirola-Merlo & Mann, 2004). Scholars have identified different personal and contextual factors that influence employee creativity (Bogilovic et al., 2017; Shalley, Zhou, & Oldham, 2004; Tierney & Farmer, 2002). However, there is less evidence of how individuals' cross-cultural interactions can influence creative performance (Bogilovic et al., 2017; Hogan & Coote, 2014). Organizations have gradually adopted the tendency of grouping employees into teams to foster creativity (Bai, Lin, & Li, 2016; Mohrman, Cohen, & Mohrman, 1995; Tesluk, Farr, & Klein, 1997). Numerous studies have examined the importance of individual team members' creative work behavior (i.e., Scott & Bruce, 1994) and the significance of teams in fostering creativity in organizations (e.g., Bai et al., 2016; Bain, Mann, & Pirola-Merlo, 2001). Through teams, firms encourage employees to be more creative as individuals and team members (Taggar, 2002). Firms increasingly consider employees' creative contributions as central components of their performance appraisal systems and other human resources management (HRM) strategies (Kozlowski & Klein, 2000). An abundant literature discusses different personal or contextual factors that influence creativity (Shalley et al., 2004; Tierney & Farmer, 2002). However, there is a paucity of research that examines the roles of cultural factors in hindering knowledge sharing between local and expatriate employees to improve their individual and team creativity (Anderson, De Dreu, & Nijstad, 2004; Anderson, Potočnik, & Zhou, 2014).

Knowledge is an important source of creativity. Hence, organizations implement rigorous knowledge management strategies to promote creativity among employees. Knowledge sharing is an important

component of knowledge management that has the potential to generate new ideas and create business opportunities (Lin, 2006). However, knowledge sharing is a complex process, and multiple factors can prevent employees from sharing their knowledge. For instance, individuals consider knowledge personal property (Nonaka, 1994). In fact, knowledge is highly contextual; others might find it difficult to interpret knowledge in the right context (Grant, 1996). Other barriers to knowledge sharing include the lack of trust on in the knowledge recipient (Bouty, 2000), a desire for reciprocity or something in exchange for sharing knowledge (Davenport & Prusak, 1998; O'Dell & Grayson, 1998), and a limited capacity to absorb and share knowledge (Cohen & Levinthal, 1990). Although extensive research has examined the factors that influence employees' knowledge sharing behavior, few studies have focused on the role of cultural intelligence in shaping employees' knowledge sharing intentions (Michailova & Hutchings, 2006). Thus, culture has proved an increasingly attractive topic in the field of knowledge sharing (Lauring, 2009). This study sheds light on knowledge sharing by examining the role of expatriate employees' cultural intelligence in knowledge sharing with home country nationals (HCNs).

Workforce diversity has become an important strategy for organizations that aim to increase their available knowledge resources. However, less is known about knowledge spillover effects among local expatriate employees in diverse workforces (Lauring, 2009). Cultural differences can hamper knowledge sharing between expatriates and HCNs because of differences in language and cultural values. This is an emerging research area in the knowledge sharing and culture literature. This study contributes to filling the gap by presenting a conceptual model that describes the knowledge spillover effects between expatriate employees and HCNs and the role of this knowledge spillover in increasing expatriate employees' individual and team creativity. It also examines the moderating effect of expatriate employees' cultural intelligence on the relationship between expatriate employees' knowledge sharing with HCNs and expatriate employees' individual and team creativity.

This study was conducted in the context of Saudi Arabia, which is characterized by many transnational organizations that employ a good high proportion of highly skilled expatriate workers to capture their knowledge resources. According to the Saudi Arabia Labor Market Report (2016), 56% of highly skilled jobs in Saudi Arabia are performed by expatriate employees. This percentage illustrates the amount of knowledge resources expatriates contribute to transnational Saudi organizations. Managing knowledge resources is a challenge for managers of transnational corporations in Saudi Arabia. Workforce diversity is an important driver of knowledge resources in transnational corporations, which are encouraged to recruit expatriate employees to their workforce to cultivate knowledge resources. However, knowledge sharing between expatriate and local employees can be obstructed by cultural differences, including language and other social values. Therefore, the managers of transitional corporations normally seek ways to promote smoother knowledge transfer between expatriates and local employees to improve individual and team creativity. The findings of this study provide valuable policy implications that can help corporate managers ensure smooth knowledge spillover among expatriate employees and local employees by improving individual and team creativity and increasing expatriate employees' cross-cultural intelligence. In the context of Saudi Arabia, Alkhuraiji, Liu, Oderanti, Annansingh, and Pan (2014); Alkhuraiji, Liu, Oderanti, and Megicks (2016) examined the role of knowledge management systems in improving decision support systems and innovation performance by local and international organizations operating in Saudi Arabia. However, additional research is required to study how knowledge resources are shared between local and expatriate employees and how expatriate employees' cultural intelligence moderate's knowledge sharing, and employees' individual and team creativity.

This study uses social categorization theory, proposed by Turner (1985). According to social categorization theory, employees tend to share more knowledge with in-group colleagues than with out-group foreign colleagues because of cultural differences (Van Knippenberg & Schippers, 2007). Thus, it would be of interest to ascertain whether local employees' intentions to share knowledge are stronger when it comes to local in-group colleagues or out-group expatriate colleagues. We assume that cultural reasons make local employees more likely to share knowledge with local colleagues than with expatriate colleagues. Furthermore, we test the moderating role of expatriate employees' cultural intelligence, hypothesizing that expatriate employees' intentions to share knowledge with local employees are greater if these expatriate employees' have high levels of cultural intelligence.

The objectives of this study are manifold, and our research contributes to the literature on knowledge sharing, creativity, and cultural intelligence by introducing a unique theoretical model that integrates emerging constructs to explain how knowledge spillover between expatriate and local employees' can potentially improve expatriate employees' individual and team creativity. This study also examines the moderating role of expatriate employees' cultural intelligence in increasing individual and team creativity when these expatriate employees share knowledge resources with expatriate and local colleagues. To the best of our knowledge, no empirical study in the management literature has examined the role of knowledge spillover between expatriate and local employees in improving individual and team creativity in the presence of moderation by expatriate employees' cultural intelligence.

2. Theoretical background and hypotheses

Workforce diversification is an important strategy to exploit the knowledge resources of employees from different cultural backgrounds (Pelled, Eisenhardt, & Xin, 1999; Williams & O'Reilly, 1998) and improve employee creativity (Amabile, 1996). However, the knowledge sharing between employees from diverse cultural backgrounds might prove complicated, and employees often avoid sharing their knowledge because of cultural differences (Gilson & Shalley, 2004). The role of expatriate employees' cultural intelligence is important for increasing knowledge sharing between expatriate and local employees, thereby improving individual and team creativity (Bogilovic et al., 2017). The following subsections present a detailed review of the literature to provide the theoretical foundations for the research model proposed and tested in this study.

2.1. Expatriate employees' knowledge sharing with HCNs as a driver of individual and team creativity

Knowledge is a critical resource that may enable organizations to achieve sustainable competitive advantages in today's dynamic business environment (Davenport & Prusak, 1998; Foss & Pedersen, 2002; Grant, 1996; Leal-Rodríguez, Ariza-Montes, Roldán, & Leal-Millán, 2014). Knowledge sharing is an important step in knowledge management systems because it ensures the efficient exploitation of organizational knowledge resources (Ali, Musawir, & Ali, 2018; Cabrera & Cabrera, 2005; Damodaran & Olphert, 2000; Davenport & Prusak, 1998; Razzaq et al., 2018). Knowledge sharing can be described as the process whereby employees exchange knowledge resources to generate new knowledge (Razzaq et al., 2018; Van den Hooff & de Leeuw van Weenen, 2004). This study considers two dimensions of knowledge sharing: knowledge donating and knowledge collecting (Van den Hooff & de Leeuw van Weenen, 2004). Knowledge donating can be described as communicating personal intellectual capital to others, whereas knowledge collecting involves consulting other colleagues to share their intellectual capital (Van den Hooff & de Leeuw van Weenen, 2004). This paper examines knowledge sharing in a diverse workforce environment, which is a relatively new concept in the field of knowledge management. In this study, it is assumed that knowledge sharing in a

diverse workforce environment can yield better knowledge outcomes than it can in a less diverse workforce scenario. Research on workforce diversity suggests that a culturally diverse workforce may provide greater knowledge resources for employees (Pelled et al., 1999; Williams & O'Reilly, 1998), which can increase individual and team creativity (Amabile, 1996). Studies also suggest that knowledge sharing is positively related to employee creativity. For instance, Sigala and Chalkiti (2015) found a positive association between knowledge sharing and employee creativity in Greece. Similarly, Liao and Chen (2018) and Ma, Cheng, Ribbens, and Zhou (2013) report that knowledge sharing plays an important role in increasing employee creativity. Therefore, we predict that individual and team creativity increases when expatriate employees share their knowledge with local employees. Based on the above theoretical reasoning we propose the following hypotheses:

H1a. Expatriate employees' knowledge sharing with HCNs increases expatriate employees' individual creativity.

H1b. Expatriate employees' knowledge sharing with HCNs increases expatriate employees' team creativity.

2.2. Expatriate employees' knowledge sharing with other expatriate employees as a driver of individual and team creativity

As discussed above, workforce diversity increases the challenges that employees face to share knowledge resources with local employees because of cultural differences, which may also affect their creative performance (Bogilovic et al., 2017). However, social categorization theory (Tajfel & Turner, 1979) proposes that employees tend to share more knowledge with "in-group" colleagues because they have fewer cultural differences. Therefore, we assume that when expatriate employees interact with other expatriate employees in transnational organizations they share more knowledge because of greater cultural similarities. Ismail (2015) reports that knowledge sharing behavior is prevalent when expatriate employees interact with other expatriate employees within the same organization. Thus, when expatriate employees have more interactions and knowledge exchange with expatriate colleagues, it increases their individual and team creativity. Hence, we propose the following hypotheses:

H2a. Expatriate employees' knowledge sharing with other expatriate employees increases expatriate employees' individual creativity.

H2b. Expatriate employees' knowledge sharing with other expatriate employees increases expatriate employees' team creativity.

2.3. Expatriate employees' individual and team creativity

Innovation is among the most important factors for achieving strong sustainable organizational performance. Because most innovations are based on creativity, organizations strive to enhance creativity (Bogilovic et al., 2017). Companies apply different strategies to enhance creativity, though few prove successful (Barron & Harrington, 1981; Farr, 1990; Hocevar & Bachelor, 1989). Organizations often use self-managed, autonomous teams assigned with ill-defined problems, which forces teams to develop creative ideas to solve these problems (Cannon-Bowers, Oser, & Flanagan, 1992; Goodman, Ravlin, & Argote, 1986). Crucially, individual and team creativity are different concepts. Team creativity is not just the average creativity level of the individual team members (Gong, Kim, Zhu, & Lee, 2013). Instead, it is an aggregate of individuals' creative behavior, interactions between group members, contextual influences (Anderson et al., 2014), and social interactions (Liao, Liu, & Loi, 2010). Knowledge sharing between individual team members is a key driver of team creativity (Amabile, 1988; Richter, Hirst, van Knippenberg, & Baer, 2012).

Much research on creativity focuses on individual factors. Less attention is paid to identifying the factors that enhance team creativity (Sternberg & Lubart, 1999; Woodman, Sawyer, & Griffin, 1993). According to Neuman and Wright (1999), it is important to examine factors that affect creativity at both individual and team levels. In his seminal study, Taggar (2002) examined a set of factors that enable groups to efficiently exploit individual employees' creative resources, reporting a strong association between individual and group creativity. This study examines the influence of knowledge spillover effects between local employees on individual and team creativity. Based on these theoretical arguments, we predict that individual creativity supports group creativity. Hence, we propose the following hypothesis:

H3. Expatriate employees' individual creativity is positively related to team creativity.

2.4. The moderating role of expatriate employees' cultural intelligence

Although employee diversity is important for enhancing employees' knowledge sharing and creativity, it creates major challenges and can pose constraints due to cultural differences. Knowledge sharing between people from diverse cultural backgrounds is a complex process because cultural differences such as language, social norms, and other social attitudes can hamper knowledge sharing between local and expatriate employees (Bogilovic et al., 2017; Ismail, 2015). Cultural intelligence is the ability to work effectively in culturally diverse work environments (Ang & Van Dyne, 2008). Employees with high cultural intelligence can understand, socialize, and work efficiently with expatriate employees, which can enhance the knowledge sharing process.

Social categorization theory (Tajfel & Turner, 1979) suggests that employees exchange more knowledge with employees from the same culture because of cultural similarities, whereas they tend to share less knowledge with employees from different cultures. Numerous studies suggest that employee diversity creates barriers to employees' knowledge sharing. For instance, Richard, Barnett, Dwyer, and Chadwick (2004) argue that as employee diversity increases, social categorization emerges, and employees start to create in-groups based on similarities with other employees. Employees tend to share more knowledge with in-group employees than with out-group employees to reduce uncertainty (Tajfel & Turner, 1986; Van Knippenberg, De Dreu, & Homan, 2004). Therefore, when expatriate employees interact with HCN colleagues, their ability to share knowledge is affected by cultural differences. However, expatriate employees' cultural intelligence can improve social interactions with local employees (Poortvliet & Giebels, 2012), which can increase expatriate employees' ability to share knowledge and influence individual and team creativity. The effects of social categorization theory on expatriate employees with high levels of cultural intelligence will be weaker because highly culturally intelligent expatriate employees will be more willing to share their knowledge with local employees precisely because of this cultural intelligence. Employees compare themselves with other employees to find similarities or dissimilarities (Tajfel & Turner, 1986; Van Knippenberg et al., 2004) and build in-groups and out-groups based on these similarities and dissimilarities.

Cultural intelligence enhances social interactions and increases similarities and knowledge sharing between expatriate and local employees, which increases expatriate employees' individual and team creativity (Bogilovic et al., 2017). Some studies (e.g., Thomas et al., 2008) have shown that cultural intelligence plays a significant role in improving employees' willingness to share knowledge with foreign employees. Another recent study by Bogilovic et al. (2017) examined the moderating role of cultural intelligence between employees. In contrast, our study categorizes employees into expatriates and HCNs, enabling detailed analysis of expatriate employees' intentions to share knowledge with local employees. We therefore assume that a higher level of cultural intelligence among expatriate employees can yield better knowledge spillover effects of knowledge sharing with local employees. Therefore, cultural intelligence can increase expatriate

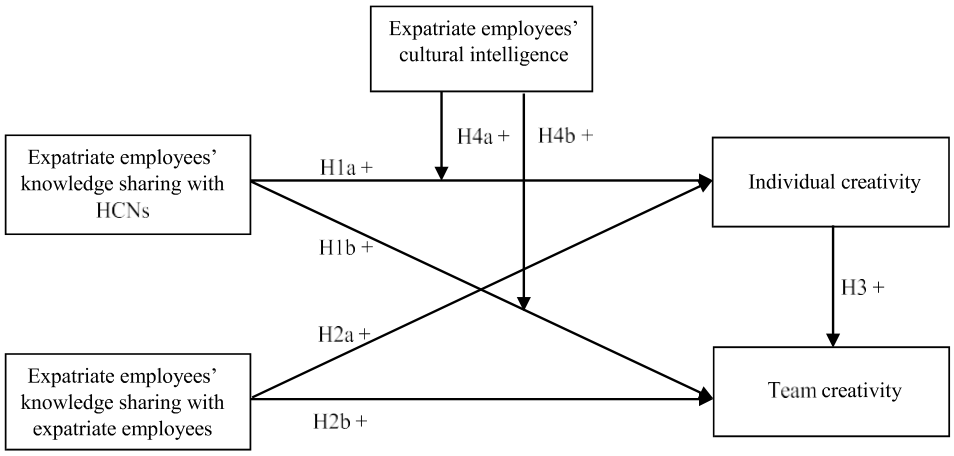

Fig. 1. Conceptual model.

employees' individual and team creativity when they share their knowledge with HCNs. Based on these theoretical arguments, we propose the following hypotheses:

H4a. Expatriate employees' cultural intelligence moderates the relationship between expatriate employees' knowledge sharing with HCNs and expatriate employees' individual creativity.

H4b. Expatriate employees' cultural intelligence moderates the relationship between expatriate employees' knowledge sharing with HCNs and expatriate employees' team creativity.

2.5. Conceptual model

The conceptual model for this study is presented in Fig. 1. The proposed model contains two related but slightly different independent variables: expatriate employees' knowledge sharing with HCNs and expatriate employees' knowledge sharing with other expatriate employees. The dependent variables are individual creativity and team creativity. This model reflects our hypothesis that when expatriate employees interact with local employees, they share their knowledge, thereby increasing their individual and team creativity. Likewise, expatriate employees' interactions with other expatriate colleagues also increase individual and team creativity. However, the knowledge spillover between expatriate and local employees may be obstructed by cultural differences (language and other cultural values). Therefore, expatriate employees' cultural intelligence is important for enhancing knowledge sharing between expatriate and HCNs to increase expatriate employees' individual and team creativity.

It is of interest to ascertain whether expatriate employees' individual creativity is predicted more effectively by knowledge sharing with HCNs or by knowledge sharing with other expatriate employees. Similarly, it is of interest to investigate whether team creativity is predicted more effectively by knowledge sharing with HCNs or by knowledge sharing with other expatriate employees. This conceptual model is thought provoking because it examines the knowledge spillover effects between expatriate and local employees. The conceptual model in Fig. 1 brings together important emerging topics related to knowledge sharing, culture, and individual and team creativity. The goal of this model is to describe knowledge spillover effects within a diverse workforce of expatriate and local employees.

3. Method

3.1. Sample and data

Data were collected from 152 expatriate employees working in different organizations in Saudi Arabia. An online survey questionnaire was used for this purpose. Participation in the survey questionnaire was voluntary, and respondents were assured data confidentiality and anonymity. We received 152 valid responses, this met the criteria proposed by Faul, Erdfelder, Lang, and Buchner (2007) based on statistical power analysis in G* 3.1.9.2 software. Therefore, the sample size acceptable for this kind of research. The data were collected from respondents from diverse socioeconomic backgrounds in terms of gender, age, education, designation, and experience. The context under study was Saudi Arabia, a country that depends heavily on expatriate workers. Of Saudi Arabia's total population of 27.3 million, 30% are immigrants (Alhamad, 2014). According to a report by the Ministry of Labor and Social Development Kingdom of Saudi Arabia's Saudi Arabia Labor Market Report (Saudi Arabia Labor Market Report, 2016), 85% of low-skilled jobs are performed by expatriate workers, whereas 15% are performed by Saudi workers. In contrast, 42% medium-skilled jobs are performed by expatriate workers, whereas 58% are performed by Saudi workers. Finally, 56% of highly skilled jobs are performed by expatriate workers, whereas 44% are performed by Saudi workers. These numbers show that many expatriate workers are integrated in the Saudi labor market, particularly in highly skilled jobs. Although many expatriate workers leave Saudi Arabia because of the Saudi government's policies to localize the labor market, a significant number of expatriate employees work in highly skilled jobs and play an important role by sharing their knowledge with local colleagues.

In this study, we used convenience sampling. We thus contacted 300 expatriates, inviting them to participate in the survey, which spanned two months from November 12, 2017, to January 12, 2018. Participants were from India (11.2%), Egypt (11.2%), Syria (10%), Pakistan (9.2%), Indonesia (9%), Philippines (10%), Bangladesh (7%), Yemen (7.2%), Sri Lanka (9%), Sudan (5.3%), Jordan (4.0%), Turkey (2.6%), and Western countries (4.3%). sample comprised 72% men and 28% women. In terms of age, 13% were aged < 25 years, 63% were aged 25 to 40 years, and 24% were aged 41 to 60 years. About 48% of participants had a bachelor's degree, and 52% had a master's degree. Regarding seniority at work, 55% were assistant managers, 27% were first-line managers, 13% were middle managers, and 5% were in top management. In terms of experience, 20% had less than two years, 48% had 2 to 10 years, 23% had 11 to 20 years, and 9% had > 20 years of professional experience. Regarding time spent in Saudi Arabia, 4% of respondents had been there for less than one year, 18% had been there for 2 to 10 years, 23% had been there for 11 to 20 years, and 55% had spent > 20 years in Saudi Arabia.

3.2. Instruments and measures

Based on an exhaustive review of the literature, this study used

different measures for the constructs in our research model (i.e., knowledge sharing intentions, individual cultural intelligence, and individual and team creativity).

The literature presents numerous instruments to measure knowledge sharing intentions. The instrument used in this study was taken from Van den Hooff and Hendrix (2004). This scale comprised two dimensions: knowledge donating and knowledge collecting. Each dimension had four items. All items were measured on a 5-point Likert type scale (1 = *strongly disagree* and 5 = *strongly agree*).

The instrument to measure individual cultural intelligence was taken from Ang and Van Dyne (2008). The instrument consisted of 20 items across four dimensions: meta-cognitive (four items), cognitive (six items), motivational (five six items), and behavioral (five items). All items were measured on a 5-point Likert type scale (1 = *strongly disagree* and 5 = *strongly agree*).

The instrument to measure individual creativity was taken from Zhou and George (2001). With this self-rated 13-item scale, employees were asked to rate their ability to exhibit creativity and improve creative performance. All items were measured on a 5-point Likert type scale (1 = *strongly disagree* and 5 = *strongly agree*).

Team creativity was measured on an 8-item scale taken from Rego, Sousa, Pina E Cunha, Correia, and Saur-Amaral (2007). This scale measured team creativity. All items were measured on a 5-point Likert type scale (1 = *strongly disagree* and 5 = *strongly agree*). The questionnaire also included questions on the respondent's age, gender, education, designation, and nationality.

3.3. Statistical procedure

We used a variance-based structural equation modeling technique known as partial least squares structural equation modeling (PLS-SEM). PLS-SEM is based on maximizing the explained variance of the endogenious latent variables. It is especially appropriate for exploratory and predictive studies (Astrachan, Patel, & Wanzenried, 2014).

This study followed the standard evaluation guidelines on reporting PLS-SEM results (e.g., Hair, Hult, Ringle, & Sarstedt, 2017; Hair, Sarstedt, Ringle, & Gudergan, 2017; Henseler, Hubona, & Ray, 2016; Richter, Cepeda, Roldán, & Ringle, 2015; Sarstedt, Ringle, & Hair, 2017). PLS-SEM has key features that differentiate it from covariance-based structural equation modeling (CB-SEM). For instance, unlike CB-SEM, PLS-SEM does not impose minimal requirements or restrictive assumptions on measurement scales, sample size, or distributional assumptions (Astrachan et al., 2014; Henseler, Ringle, & Sarstedt, 2015; Richter et al., 2015; Sarstedt et al., 2017). The following points justify the acceptability of PLS-SEM in this study (Ali, Musawir et al., 2018). First, we modeled expatriate employees' cultural intelligence, knowledge sharing intentions with expatriate co-workers, and knowledge sharing intentions with Saudi co-workers as composites estimated in Mode A (Henseler, 2017). Second, we used knowledge sharing intentions with expatriate co-workers, and knowledge sharing intentions with Saudi co-workers to predict individual and team creativity, responding to the call to use PLS-SEM as a prediction-oriented approach to SEM (Richter et al., 2015; Rigdon, 2012; Schlägel & Sarstedt, 2016). Third, the research model depicts a relatively complex structure with several manifest and latent variables and the existence of multi-dimensionality (i.e., first-order and second-order constructs) in the constructs included in the model (Chin, 2010; Hair, Sarstedt, Ringle, & Mena, 2012; Richter et al., 2015). Fourth, the structural relationships within the model are considered to be in an early stage of theory development or extension (Ali, Ali, Badghish, & Baazeem, 2018), providing the opportunity for new phenomena to be explored and developed (Richter et al., 2015). Fifth, the latent variables scores were used in the subsequent analysis of predictive relevance, particularly in the implementation of the two-stage approach for hierarchical models and moderation analysis (Richter et al., 2015; Roldán & Sánchez-Franco, 2012). Sixth, the sample size ($n = 152$) was relatively small (Roldán & Sánchez-Franco, 2012). Finally, this study benefited from the advantages of PLS-SEM in terms of less rigorous requirements or restrictive assumptions (Ali, Ali et al., 2018), which enabled us to create and estimate our model without imposing additional constraints (Hair, Hult, et al., 2017; Hair, Sarstedt, et al., 2017). We used SmartPLS 3.2.7 software (Ringle, Wende, & Becker, 2015) for the PLS-SEM analysis and a freely available computational tool for SPSS called PROCESS syntax (Hayes, 2017) for the conditional moderating analysis.

4. Analysis and results

Under standard evaluation guidelines (Hair, Hult, et al., 2017), analysis and interpretation in PLS-SEM has three stages: (1) assessment of reliability and validity of the measurement model, (2) evaluation and validation of the structural model, and (3) assessment of global model fit.

4.1. Measurement model

Following the guidelines in Henseler (2017), Rigdon, Sarstedt, and Ringle (2017), Sarstedt, Hair, Ringle, Thiele, and Gudergan (2016), and Van Riel et al. (2017), we modeled expatriate employees' cultural intelligence, knowledge sharing with expatriates, and knowledge sharing with HCNs as composites measured in Mode A at the indicator, first-order, and second-order construct levels. Cultural intelligence was operationalized as a composite reflective construct (Mode A composite model) because the four cultural intelligence dimensions (i.e., meta-cognitive, cognitive, motivational, and behavioral) were considered different aspects that jointly shape cultural intelligence. As in Table 1, the two first-order reflective dimensions of cultural intelligence reflect the higher-order composite construct. Knowledge sharing with expatriates and knowledge sharing with HCNs were formed as second-order reflective composite constructs consisting of two similar first-order reflective dimensions: knowledge donating and knowledge collecting. Individual creativity and team creativity were formed as first-order reflective composite constructs. We followed the indications of Wright, Campbell, Thatcher, and Roberts (2012) by using the two-stage approach to evaluate the measurement model (Becker, Klein, & Wetzels, 2012). In the first stage, the latent variables of all first-order constructs were calculated without the presence of the second-order construct. In the second stage, the latent variables of all first-order constructs were used as manifest variables for the second-order constructs in a separate second-stage analysis (Becker et al., 2012).

The evaluation of the measurement model in PLS-SEM was based on individual indicator reliability, construct reliability, convergent validity, and discriminant validity. Individual indicator reliability depends on examining the standardized factor loadings. Reliability is considered acceptable when an indicator has a standardized factor loading of ≥0.70 on its respective construct (Fornell & Larcker, 1981). This study follows Sánchez-Franco and Roldán's (2010) approach by using two-tailed *p*-values to check the significance of the standardized factor loading via bootstrapping. Table 1 shows the standardized factor loadings for all first-order reflective constructs of each measurement indicat and the dimensions (correlational weights) of the second-order constructs. The two-tailed *t*-test for all loadings was at the $p < 0.001$ level, confirming that most standardized factor loadings were significant. Exceptions were KCE3 and KCE4 from knowledge collecting (from Saudi to expatriate) and IC9 and IC11 from individual creativity. These four items were thus deemed problematic and were removed from further analysis. Table 1 shows the assessment of the measurement model after generating second-order composites (Mode A). Table 2 shows the correlational weights of first-order composites on second-order composites. Cultural intelligence had a positive weight (0.80 meta-cognitive, 0.85 cognitive, 0.81 motivational, and 0.80 behavioral). Similarly, the correlational weights of the first-order composites of knowledge donating (0.95) and knowledge collecting (0.94) had

Table 1

Measurement model results.

Step I: Results of the assessment of measurement model for first-order constructs (first-order measurement model)

First-order composite Mode A	Code	Item wording	S.L	S.E	*t*-Value[a, b]	α	C.R	ρ_A	AVE[c]	VIF
Meta-cognitive CQ						0.81	0.87	0.84	0.57	1.34
	MeCQ1	I am conscious of the cultural knowledge I use when interacting with people with different cultural backgrounds.	0.80	0.05	17.30					
	MeCQ2	I adjust my cultural knowledge as I interact with people from a culture that is unfamiliar to me.	0.70	0.07	9.60					
	MeCQ3	I am conscious of the cultural knowledge, I apply to cross-cultural interactions.	0.82	0.03	26.15					
	MeCQ4	I check the accuracy of my cultural knowledge as I interact with people from different cultures.	0.64	0.07	9.62					
Cognitive CQ						0.84	0.88	0.87	0.55	1.41
	CCQ1	I know the legal and economic systems of other cultures.	0.83	0.03	24.37					
	CCQ2	I know the rules (e.g., vocabulary, grammar) of other languages.	0.78	0.05	16.94					
	CCQ3	I know the cultural values and religious beliefs of other cultures.	0.76	0.06	13.60					
	CCQ4	I know the marriage systems of other cultures.	0.81	0.04	20.73					
	CCQ5	I know the arts and crafts of other cultures.	0.67	0.08	8.78					
	CCQ6	I know the rules for expressing non-verbal behaviors in other cultures.	0.60	0.09	6.63					
Motivational CQ						0.91	0.93	0.93	0.73	1.30
	MoCQ1	I enjoy interacting with people from different cultures.	0.79	0.05	16.22					
	MoCQ2	I am confident that I can socialize with locals in a culture that is unfamiliar to me.	0.91	0.02	53.34					
	MoCQ3	I am sure I can deal with the stresses of adjusting to a culture that is new to me.	0.91	0.02	46.54					
	MoCQ4	I enjoy living in cultures that are unfamiliar to me.	0.79	0.04	21.33					
	MoCQ5	I am confident that I can get accustomed to the shopping conditions in a different culture.	0.86	0.04	21.78					
Behavioral CQ						0.80	0.86	0.81	0.56	1.32
	BCQ1	I enjoy interacting with people from different cultures.	0.79	0.04	19.78					
	BCQ2	I am confident that I can socialize with locals in a culture that is unfamiliar to me.	0.70	0.05	14.56					
	BCQ3	I am sure I can deal with the stresses of adjusting to a culture that is new to me.	0.75	0.06	11.73					
	BCQ4	I enjoy living in cultures that are unfamiliar to me.	0.77	0.05	16.13					
	BCQ5	I am confident that I can get accustomed to the shopping conditions in a different culture.	0.72	0.06	12.81					
Knowledge donating (from Saudi to expatriate)			0.70	0.09	7.26	0.72	0.82	0.86	0.54	2.46
	KDE1	When I have learned something new, I tell my expatriate colleagues about it.	0.88	0.02	38.14					
	KDE2	I share information I have with my expatriate colleagues.	0.87	0.03	28.71					
	KDE3	I think it is important that my expatriate colleagues know what I am doing.	0.86	0.03	25.12					
	KDE4	I regularly tell my expatriate colleagues what I am doing.	0.77	0.04	19.22					
Knowledge collecting (from Saudi to expatriate)						0.81	0.87	0.85	0.57	2.70
	KCE1	When I need certain knowledge, I ask my expatriate colleagues about it.	0.94	0.01	64.02					
	KCE2	I like to be informed of what my expatriate colleagues know.	0.90	0.03	29.50					
	KCE3*	I ask my expatriate colleagues about their abilities, when I need to learn something.								
	KCE4*	When an expatriate colleague is good at something, I ask them to teach me how to do it.								
Knowledge donating (from expatriate to Saudi)						0.89	0.93	0.90	0.76	1.60
	KDS1	When I have learned something new, I tell my Saudi colleauges about it.	0.89	0.02	37.49					
	KDS2	I share information I have with my Saudi colleagues.	0.90	0.02	38.61					
	KDS3	I think it is important that my Saudi colleagues know what I am doing	0.81	0.05	16.88					
	KDS4	I regularly tell my Saudi colleagues what I am doing.	0.79	0.04	21.24					
Knowledge collecting (from expatriate to Saudi)						0.87	0.91	0.88	0.72	1.77
	KCS1	When I need certain knowledge, I ask my Saudi colleagues about it.	0.84	0.04	21.41					
	KCS2	I like to be informed of what my Saudi colleagues know.	0.85	0.04	22.71					
	KCS3	I ask my Saudi colleagues about their abilities, when I need to learn something.	0.89	0.02	43.66					
	KCS4	When a Saudi colleague is good at something, I ask them to teach me how to do it.	0.89	0.02	43.18					
Individual creativity						0.91	0.92	0.92	0.52	1.00
	IC1	Suggests new ways to achieve goals or objectives.	0.72	0.07	9.89					
	IC2	Comes up with new and practical ideas to improve performance.	0.84	0.05	15.56					
	IC3	Searches out new technologies, processes, techniques, and/or product ideas.	0.76	0.05	15.02					
	IC4	Suggests new ways to increase quality.	0.83	0.04	20.49					
	IC5	Is a good source of creative ideas.	0.83	0.04	22.79					
	IC6	Is not afraid to take risks.	0.59	0.07	8.79					
	IC7	Promotes and champions ideas to others.	0.83	0.03	24.62					
	IC8	Exhibits creativity on the job when given the opportunity to.	0.53	0.10	5.03					
	IC9*	Develops adequate plans and schedules for the implementation of new ideas.								
	IC10	Often has new and innovative ideas.	0.53	0.08	6.75					
	IC11*	Comes up with creative solutions to problems.								
	IC12	Often has a fresh approach to problems.	0.64	0.08	7.89					
	IC13	Suggests new ways of performing work tasks.	0.77	0.07	11.80					
Team creativity						0.87	0.90	0.88	0.53	1.91

(*continued on next page*)

Table 1 (*continued*)

Step I: Results of the assessment of measurement model for first-order constructs (first-order measurement model)

First-order composite Mode A	Code	Item wording	S.L	S.E	*t*-Value[a, b]	α	C.R	ρ_A	AVE[c]	VIF
	TC1	My team members suggest new ways to achieve goals or objectives.	0.79	0.04	22.18					
	TC2	My team members come up with new and practical ideas to improve performance.	0.65	0.09	7.55					
	TC	My team members suggest new ways to increase quality.	0.73	0.06	12.51					
	TC4	My team members promote and champion ideas to others.	0.70	0.06	10.97					
	TC5	My team members exhibit creativity when given the opportunity to.	0.78	0.05	16.27					
	TC6	My team members develop adequate plans and schedules for the implementation of new ideas.	0.75	0.04	17.63					
	TC7	My team members have new and innovative ideas.	0.77	0.06	13.84					
	TC8	My team members come up with creative solutions to problems.	0.66	0.08	8.75					

Step II: Results of the assessment of measurement model after generating second-order constructs (final measurement model)

Second-order composite Mode A	C.W	S.E	t-Value[a, b]	α	C.R	ρ_A	AVE[c]	VIF
Cultural intelligence (CQ)				0.80	0.95	0.89	0.90	2.51
Meta-cognitive	0.80	0.07	10.71					
Cognitive	0.85	0.05	18.72					
Motivational	0.81	0.05	15.47					
Behavioral	0.80	0.06	14.53					
EXpatriate employees knowledge sharing with expatriate employees				0.89	0.95	0.89	0.90	3.99
Knowledge donating	0.95	0.01	101.66					
Knowledge collecting	0.94	0.02	60.97					
EXpatriate employees knowledge sharing with HCNs				0.83	0.92	0.84	0.86	2.17
Knowledge donating	0.92	0.02	47.91					
Knowledge collecting	0.93	0.02	45.13					
Individual creativity	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.31
Team creativity	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.96

Note: *Problematic indicator and removed from final analysis. S.L = standard loadings; S.E = standard error; [a]test-statistics are obtained by 500 Bootstrap runs; [b]absolute *t*-values > 1.65 are one-tailed significant at 5%; α = Cronbach's alpha; C.R = composite reliability; ρA = Dijstra-Henseler's rho; AVE = average variance extracted; [c]percentage of variance of indicator explained by the latent variable; CW = correlational weights of first-order construct on second-order construct.

positive weights on the second-order composite of knowledge sharing with expatriates. Finally, the correlational weights of the first-order composites of knowledge collecting (0.92) and knowledge donating (0.93) had positive weights on the second-order composite of knowledge sharing with HCNs. All correlational weights were significant at the 0.001 level.

Second, the reliability and convergent validity of all first-order and second-order reflective constructs was evaluated by analyzing three types of reliability of indicators: Cronbach's alpha, Dijkstra-Henseler's rho (ρA), and composite reliability. The recommended value is ≥0.70 for all three types of reliability. The values of Cronbach's alpha, Dijkstra-Henseler's rho (ρA), and composite reliability exceeded 0.70, confirming the convergence or internal consistency of all first-order constructs (Table 2) and second-order reflective constructs (Table 3).

Third, the average variance extracted (AVE) provides an indication of convergent validity. Fornell and Larcker (1981) recommend an AVE value ≥0.50, which means that ≥50% of the indicator variance should be accounted for. Consistent with this recommendation, all first-order and second-order constructs had AVE values that exceeded this value (Table 1).

Fourth, for both the first-order measurement model and the second-order (or final) measurement model, we assessed discriminant validity based on Hair, Hult, et al.'s (2017) guidelines. We employed three approaches: (1) Fornell and Larcker criterion, (2) cross loading, and (3) the heterotrait-monotrait ratio of correlations (HTMT). As per the Fornell and Larcker (1981) criterion, the square root of the AVE for each first-order and second-order construct was greater than the absolute value of their respective correlations. The results for the cross loadings of all indciators or dimensions (in both the first-order and the final measurement model) loaded higher on their respective constructs

Table 2

Mean, standard deviations, correlations and discriminant validity results after generating first-order constructs.

	Mean	S.D	1	2	3	4	5	6	7	8	9	10
1. Meta-cognitive CQ	3.73	0.72	*0.75*	0.61	0.55	0.70	0.63	0.51	0.61	0.62	0.34	0.63
2. Cognitive CQ	3.68	0.83	0.51	*0.74*	0.62	0.46	0.60	0.52	0.55	0.52	0.30	0.48
3. Motivational CQ	3.29	0.77	0.48	0.54	*0.85*	0.54	0.63	0.62	0.65	0.62	0.38	0.55
4. Behavioral CQ	3.75	0.68	0.58	0.39	0.49	*0.75*	0.68	0.56	0.76	0.74	0.40	0.82
5. Knowledge donating[a]	3.53	0.82	0.53	0.52	0.57	0.58	*0.84*	0.84	0.84	0.88	0.44	0.68
6. Knowledge collecting[a]	3.69	0.85	0.43	0.44	0.55	0.47	0.71	*0.92*	0.70	0.89	0.53	0.55
7. Knowledge donating[b]	3.78	0.78	0.53	0.47	0.59	0.65	0.73	0.61	*0.85*	0.89	0.36	0.72
8. Knowledge collecting[b]	3.74	0.80	0.55	0.46	0.56	0.64	0.78	0.77	0.79	*0.87*	0.48	0.74
9. Individual creativity	3.80	0.65	0.30	0.28	0.37	0.38	0.41	0.47	0.33	0.46	*0.72*	0.40
10. Team creativity	3.79	0.68	0.55	0.42	0.50	0.94	0.61	0.48	0.64	0.66	0.38	*0.73*

Note: S.D = standard deviation; diagonal and italicized elements are the square roots of the AVE (average variance extracted); below the diagonal elements are the correlations between the constructs values; above the diagonal elements are the HTMT values.

[a] From Saudi to expatriate.

[b] From expatriate to Saudi.

Table
Mean, standard deviations, correlations and discriminant validity results after generating second-order constructs.

	Mean	S.D	1	2	3	4	5
1. Cultural intelligence (CQ)	3.57	0.77	*0.82*	0.83	0.84	0.44	0.69
2. Expatriate employees' knowledge sharing with expatriate employees[a]	3.61	0.83	0.68	*0.95*	0.89	0.44	0.73
3. Expatriate employees' knowledge sharing with HCNs[b]	3.76	0.79	0.67	0.83	*0.93*	0.52	0.65
4. Individual creativity	3.80	0.65	0.39	0.45	0.47	*1.00*	0.38
5. Team creativity	3.79	0.68	0.60	0.69	0.59	0.33	*1.00*

Note: SD = standard deviation; diagonal and italicized elements are the square roots of the average variance extracted (AVE); below the diagonal elements are the correlations between the constructs values; above the diagonal elements are the HTMT values.

[a] From Saudi to expatriate.

[b] From expatriate to Saudi.

than on the other constructs, and the cross-loading differences were much higher than the suggested threshold of 0.10 (Gefen & Straub, 2005). Finally, in both the first-order and the final measurement model, the HTMT values were below the threshold of 0.85 or 0.90 (see the values above the diagonal in Tables 2 and 3). These results confirm discriminant validity for this study.

Finally, Tables 2 and 3 show the means, standard deviations, and correlations for all first-order and second-order constructs (values below the diagonal) and the AVE square root on the diagonals. The mean values indicate that most constructs were generally above the mid-point, whereas correlations among the exogeneous constructs were moderate or low. Thus, multicollinearity was not a concern in this study, as reflected by the data in Table 1 (Hair, Hult, et al., 2017).

4.2. Structural model

This study follows the standard guidelines in Hair, Hult, et al. (2017) to assess the structural model. Initially, the structural model was checked for collinearity between the constructs. The only technique for assessing collinearity issues is the variance inflation factor (VIF) value. As shown in Table 1, all the values of VIF were below the threshold of 5 to 10 (Hair, Hult, et al., 2017), confirming that collinearity in the structural model was not an issue.

Next, the structural model was evaluated using the blindfolding procedure with an omission distance of 7. A Q^2 value above zero in the cross-validated redundancy report confirms predictive relevance. Table 4 shows that Q^2 (Individual creativity) = 0.20, and Q^2 (Team creativity) = 0.45. All Q^2 values were substantially greater than zero, providing support for the model's predictive relevance in terms of out-of-sample prediction (Hair et al., 2012). This result is also supported by coefficient of determination (R^2) values. Table 4 shows that R^2 (Individual creativity) = 0.28 and R^2 (Team creativity) = 0.50, suggesting that the structural model had satisfactory in-sample predictive power (Sarstedt, Ringle, Henseler, & Hair, 2014), consistent with prior research in this area (Barczak, Lassk, & Mulki, 2010; Zhou & George, 2001). Next, the sizes and significance of the path coefficients that reflect the hypotheses were examined. The significance of the path coefficients was calculated using the bootstrapping procedure (with 5000 bootstrap samples and 152 bootstrap cases). Fig. 2 provides structural model results. Table 4 provides the path coefficients, *t*-statistics, significance level, and *p*-values, as well as the corresponding 95% bias-correlated and accelerated (BCa) bootstrap confidence intervals. We followed Roldán and Sánchez-Franco's (2012) indications, reporting one-tailed and corresponding *p*-values for statistical inferences. As Kock (2015, p. 1) suggests, "A one-tailed test is recommended if the coefficient is assumed to have a sign (positive or negative), which should be reflected in the hypothesis that refers to the corresponding association. If no assumptions are made about coefficient sign, a two-tailed test is recommended." Analysis of the path coefficients and levels of significance shows that all hypothesized direct relationships were empirically supported. The empirical results show direct, significant, positive relationships between expatriate employees' knowledge sharing with HCNs and individual creativity (H1a: $\beta = 0.20^{*}$, $t = 1.67$, $p < 0.05$), expatriate employees' knowledge sharing with HCNs and team creativity (H1b: $\beta = 0.63^{***}$, $t = 6.12$, $p < 0.001$), expatriate employees' knowledge sharing with other expatriate employees and individual creativity (H2a: $\beta = 0.31^{*}$, $t = 2.58$, $p < 0.01$), expatriate employees' knowledge sharing with other expatriate employees and team creativity (H2a: $\beta = 0.20^{***}$, $t = 3.34$, $p < 0.001$), and individual creativity and team creativity (H3: $\beta = 0.11^{*}$, $t = 1.83$, $p < 0.05$). Thus, hypotheses H1a, H1b, H2a, H2b, and H3 are supported.

4.3. Model fit

We calculated the value of overall goodness of fit employing the standardized root mean square residual (or SRMR). We followed Henseler et al.'s (2015) indications, referring to SRMR as an estimation for model validation. SRMR values > 0.08 were considered favorable (Hu & Bentler, 1999). For the model estimation, the SRMR value = 0.07, which confirms the overall model fit of the path model, which means that model fits the empirical data (Hair, Hult, et al., 2017; Henseler et al., 2015).

4.4. Moderation analysis

We performed moderation analysis to test the hypothesis that cultural intelligence moderates the relationship between expatriate employees' knowledge sharing with HCNs and individual creativity (H4a) and team creativity (H4b). Table 4 shows that the interaction effect of cultural intelligence on the link between expatriate employees' knowl- edge sharing with HCNs and individual creativity was statistically sig- nificant (H3: $\beta = 0.13^{*}$, $t = 1.88$, $p < 0.05$), providing statistical evi- dence to support H4a. This result implies that cultural intelligence moderates the relationship between expatriate employees' knowledge sharing with HCNs and individual creativity. It was therefore necessary
to examine how the effect of cultural intelligence on the link between expatriate employees' knowledge sharing with HCNs and individual creativity varied according to cultural intelligence. We used PROCESS syntax version 2.16 (Hayes, 2017) to estimate the conditional effect of cultural intelligence on the link between expatriate employees' knowledge sharing with HCNs and individual creativity. Employing latent variable scores from PLS-SEM analysis, PROCESS syntax yields the conditional moderating effect at three levels, as well as the 95% bias-corrected and accelerated (BCa) bootstrap confidence intervals for the moderating effect at various values of the moderator variable (cultural intelligence). The three levels were as follows: the mean = 3.57 and standard deciation (S.D) = 0.77, which was equivalent to an average level of cultural intelligence in the sample; the mean minus one S.D (i.e., 2.57), which was equivalent to low levels of cultural intelligence; and the mean plus one S.D (i.e., 4.57), which was equivalent to high levels of cultural intelligence. Consistent with H4a, Table 5(A) shows that when cultural intelligence was low (—1 S.D), the conditional effect of cultural intelligence on the relationship between expatriate employees' knowledge sharing with HCNs and individual creativity was

Table
Overall results.

Structural path	Path coefficient	S.E	*t*-Value (bootstrap)	95% BCa confidence interval	Conclusion
Structural model results					
Direct effect					
Expatriate employees' knowledge sharing with HCNs → expatriate employees' individual creativity	0.20*	0.12	1.67	(0.02, 0.51)	H1a; supported
Expatriate employees' knowledge sharing with HCNs → team creativity	0.63***	0.10	6.12	(0.43, 0.83)	H1b; supported
Expatriate employees' knowledge sharing with expatriate employees' → expatriate employees' individual creativity	0.31**	0.12	2.58	(0.04, 0.57)	H2a; supported
Expatriate employees' knowledge sharing with expatriate employees → team creativity	0.20***	0.06	3.34	(0.10, 0.30)	H2b; supported
Individual creativity → team creativity	0.11*	0.06	1.83	(0.01, 0.25)	H3; supported
Moderating effect					
Expatriate employees' knowledge sharing with HCNs × culture intelligence → expatriate employees' individual creativity	0.13*	0.07	1.88	(0.01, 0.26)	H4a; supported
Expatriate employees' knowledge sharing with HCNs × culture intelligence → team creativity	0.13***	0.04	3.09	(0.05, 0.21)	H4b; supported
Goodness of model fit					
SRMR composite model = 0.07					
Structural model fit					
R^2; determination of coefficients					
$R^2_{(\text{Individual creativity})} = 0.28$					
$R^2_{(\text{Team creativity})} = 0.50$					
Threshold for R^2 value > 0.25 (weak); ≥0.50 (moderate); ≥0.75 (substantial).					
Predictive relevance of model fit					
Q^2; predictive relevance of endogenous (omission distance = 7).					
$Q^2_{(\text{Individual creativity})} = 0.20$					
$Q^2_{(\text{Team creativity})} = 0.45$					
Threshold for Q^2 value > 0 indicate predictive relevance.					

Note: *t (0.05, 4999) = 1.645; **t (0.01, 4999) = 2.327; ***t (0.001, 4999) = 3.092.
n.s = not significant direct effect on 0.05, based on one-tailed test t (4999).
BCa = bias corrected confidence interval. Bootstrapping based on n = 5000 subsamples.
SRMR = standardized root-mean square residual.

positive and significant but weak (β = 0.29, boot S.E. = 0.14). However, when cultural intelligence was high (+1 S.D), the conditional effect was positive and significant but stronger (β = 0.56, boot S.E. = 0.14). These findings support H4a by implying that a high or low effect of expatriate employees' knowledge sharing with HCNs on individual creativity is moderated by high or low cultural intelligence. Fig. 3 shows the plot of the interaction effect to observe how cultural intelligence moderates the association between expatriate employees' knowledge sharing with HCNs and individual creativity. Therefore, this analysis suggests that the relationship between expatriate employees' knowledge sharing with HCNs and individual creativity is stronger when cultural intelligence is high and weaker when cultural intelligence is low. Similarly, following the same approach, the results in Table 5(B) are consistent with H4b, which suggest that the positive effect of expatriate employees' knowledge sharing with HCNs on team creativity is moderated by cultural intelligence. The effect was stronger when cultural intelligence was high and weaker when cultural intelligence was low. Fig. 4 shows the plot of the interaction effect to observe how cultural intelligence moderates the association between expatriate employees' knowledge sharing with HCNs and team creativity. Therefore, this analysis suggests that the relationship between expatriate employees' knowledge sharing with HCNs and team creativity is stronger when cultural intelligence is high and weaker when cultural intelligence is low.

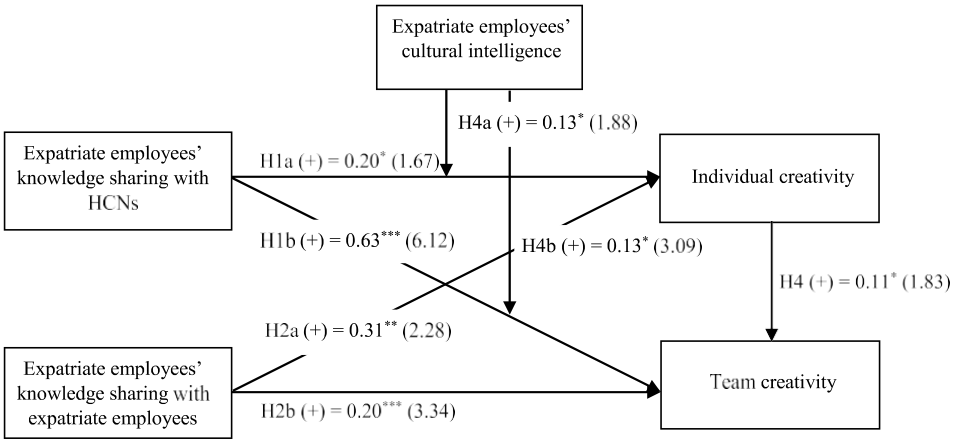

Fig. 2. Structural model results.

Table 5
Conditional process analysis.

	Path coefficient	Boot S.E	*t*-Value (bootstrap)	95% BCa confidence interval
(A) Conditional effect of expatriate employees' knowledge sharing with HCNs on individual creativity culture at the values of culture intelligence				
Low; M - 1.0030 S.D (2.57)	0.32	0.14	2.32	(0.05, 0.59)
Moderate; M (3.57)	0.45	0.12	3.87	(0.22, 0.68)
High; M + 1.0037 S.D (4.57)	0.58	0.14	4.20	(0.30, 0.85)
(B) Conditional effect of expatriate employees knowledge sharing with HCNs on team creativity culture at the values of culture intelligence				
Low; M - 1.0030 S.D (2.57)	0.16	0.09	1.51	(0.05, 0.33)
Moderate; M (3.57)	0.27	0.07	3.66	(0.13, 0.42)
High; M + 1.0037 S.D (4.57)	0.40	0.07	5.50	(0.26, 0.55)

Note: Values for culture intelligence (moderator) are the mean and plus/minus one standard deviation (S.D) from mean; S.E = Standard error, BCa = Bias corrected.

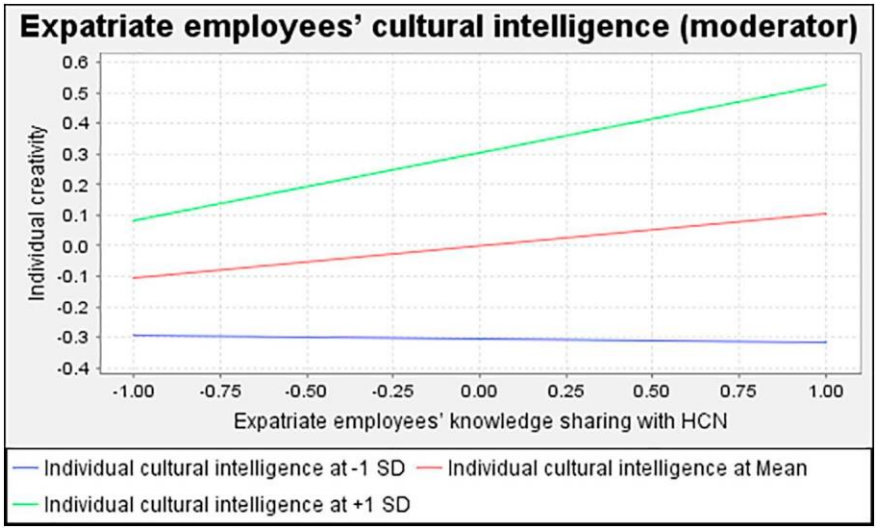

Fig. 3. The moderating effect of culture intelligence on Expatriate employees knowledge sharing with HCN – individual creativity link (see online version for colors).

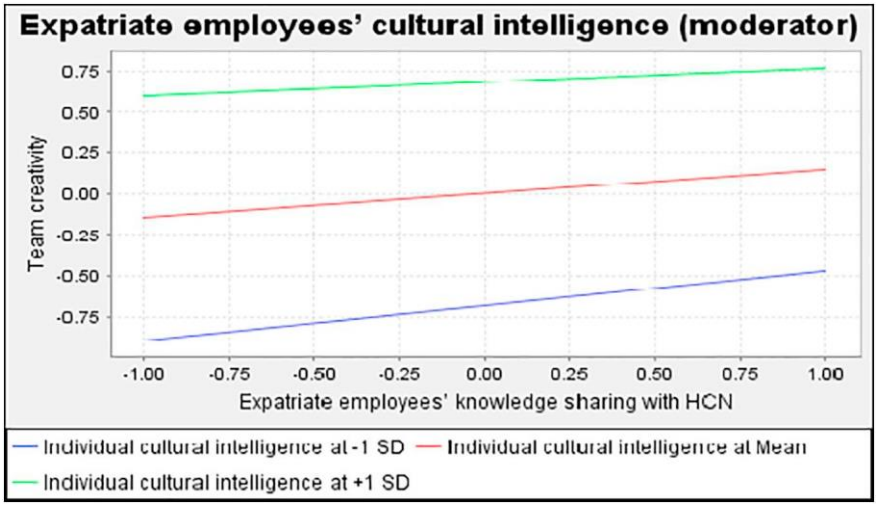

Fig. 4. The moderating effect of culture intelligence on Expatriate employees' knowledge sharing with HCN – team creativity link (see online version for colors).

4.5. Robustness of the model

We also tested the rigor of non-hypothesized relationships in the proposed model. The rigor of the model suggests that although expatriate employees' knowledge sharing with HCNs positively relates to both individual and team creativity, the effect is stronger on team creativity than on individual creativity. Table 4 shows that expatriate employees' knowledge sharing with HCNs had a stronger effect on team creativity than on individual creativity ($\beta = 0.63^{***}$ vs. $\beta = 0.20^{*}$, $t = -21.5$, $p < 0.001$). Similarly, the results suggest that expatriate employees' knowledge sharing with other expatriate employees is positively associated with both individual and team creativity but that the effect is stronger on individual creativity than on team creativity. Table 4 shows that expatriate employees' knowledge sharing with other expatriate employees had a stronger effect on individual creativity than on team creativity ($\beta = 0.31^{**}$ vs. $\beta = 0.20^{***}$, $t = 1.83$, $p < 0.05$).

5. Discussion and conclusions

Although some studies suggest that there are positive relationships between knowledge sharing with expatriates, and HCNs, individual and team creativity, and cultural intelligence, few studies have empirically analyzed these relationships using a single model. Despite the key role of knowledge sharing in the success of multinational firms, few empirical studies have assessed the effect of knowledge sharing on individual and team creativity. Hence, this study contributes to the literature as the first study to examine such relationships using PLS path modeling for a sample of 152 respondents from Saudi Arabia. The main contribution of this paper is therefore to broaden the limited empirical literature examining the impacts of intercultural knowledge sharing on individual and team creativity. The rigor of the non-hypothesized relationships in the proposed model suggests that expatriate employees' knowledge sharing with HCNs promotes team creativity more than individual creativity, whereas expatriate employees' knowledge sharing with other expatriate employees promotes individual creativity more than team creativity. These results are consistent with research by Poortvliet and Giebels (2012), who suggest that expatriate employees share knowledge with HCNs for performance-approach goals (team creativity), whereas they share knowledge with each other for mastery-approach goals (individual creativity).

This study makes several theoretical contributions. Our findings provide additional evidence that knowledge sharing with expatriates positively affects individual and team creativity. We observed a positive relationship between knowledge sharing with HCNs and individual creativity. However, the effect of knowledge sharing with HCNs on team creativity was non-significant. The result of this non-significant effect does not imply that knowledge sharing with HCNs is any less important. Instead, it suggests a less pronounced importance than with other significant independent variables. Bivariate correlations among all independent and dependent variables were significant and positive (Tables 2 and 3), supporting this argument. These findings should be further explored in future research. Also, our results indicate that individual cultural intelligence positively moderates the relationship between knowledge sharing with expatriates and individual creativity. Finally, the results suggest that individual creativity and team creativity share a positive relationship. The findings of this study are consistent with those reported previously. For instance, our results are consistent with those of Vlajčić, Caputo, Marzi, and Dabic (2018), who report how all four dimensions of cultural intelligence (meta-cognitive, cognitive, behavioral, and motivational) act as key drivers of knowledge sharing. Ismail (2015) also reports a strong role of individual cultural intelligence in developing employees' intentions to share knowledge with expatriate employees. In another study, (Ismail, Sobri, Zulkifly, Hamzah, & Yamato, 2016) reports the positive role of cultural intelligence in shaping employees' intentions to share knowledge with expatriate employees. We observed a significant positive association between individual and team creativity, which is related to Taggar's (2002) finding that a group's ability to efficiently exploit individual employees' creative resources increases overall team creativity.

The empirical findings from the PLS-SEM analysis have major managerial and practical implications for organizations with diverse workforces that include expatriate employees. Our empirical findings shed light on this topic by providing insights into the ways in which the management may endorse and enable communication and interaction flows between HCNs and expatriate employees, which may lead to higher levels of individual and team creativity. In this vein, companies should focus on the effective management of the knowledge resources of their expatriate and local employees to enhance creativity at individual and team levels. The findings of this study may also have social implications by highlighting the benefits of greater harmony with foreigners and expatriates and learning from each other. This should ultimately serve to increase individuals' and firms' knowledge base and generate more creativity to produce higher quality products and services or work processes to increase people's quality of life. It also shows some of the benefits of having better relationships with people from around the world to build a peaceful and prosperous society.

The study has important practical implications for corporate managers. First, the empirical results suggest that to improve individual and team creativity, organizations should foster diversity among their teams, providing them with members with different backgrounds, competencies, and cultures. Such diversity in members' backgrounds usually equips the firm with a broader knowledge base and expertise through knowledge sharing mechanisms, which might ultimately enable employees to develop creative ideas. This conclusion is consistent with those reported by Wang, Kim, and Lee (2016, p. 3237), who affirm that "to enhance team creativity, organizations should ensure that their teams are composed of team members with different cognitive attributes such as abilities, knowledge bases, beliefs, and values." Second, the findings of this study support the assumptions of social categorization theory while confirming the moderating role of expatriate employees' cultural intelligence. The higher the expatriate employees' cultural intelligence is, the more expatriate employees tend to share their knowledge with HCNs, and the higher their individual and team creativity will be. Therefore, managers should pay special attention to developing expatriate employees' cultural intelligence to reap the benefits of expatriate employees' knowledge resources. Organizations can incorporate cultural intelligence into their selection criteria to hire expatriate employees with high levels of cultural intelligence, who might manifest low levels of cultural aversion to sharing knowledge with local employees. Training programs should also be organized to reduce the cultural gap between expatriate and local employees. These training programs offer a powerful way to reinforce open-mindedness and disseminate cultural values among staff (Hernández-Mogollon, Cepeda-Carrión, Cegarra-Navarro, & Leal-Millán, 2010). Thus, policies aimed at increasing expatriate employees' cultural intelligence and improving knowledge sharing with local employees and individual and team creativity should be emphasized.

As with any empirical study, this study also has limitations that offer opportunities for further research. First, although the empirical results support most of the hypothesized relationships, the study is to some degree exploratory. Further research could validate the research model posited in this study by collecting data from employees working in knowledge-based industries in different cultures. The influence of other moderating variables such as gender, age, education, or experience could also be examined in detail to observe how cultural intelligence may be more effective in diverse contexts. It would also be of interest to know the expatriate's country of origin and the prevailing working conditions in the host country. This study examined the flow of knowledge from expatriate employees to HCNs. However, according to Heizmann, Fee, and Gray (2018), HCNs have been underestimated and underused in multinationals, and their role in enabling knowledge sharing might be pivotal. Future studies could examine the bi-directional flow of knowledge sharing to observe how knowledge sharing between local and expatriate employees influences local employees' individual and group creativity. The mediation of some other related variables such as co-worker exchange between local and expatriate employees could also provide a better understanding of knowledge sharing and creativity perspectives among HCNs and expatriate employees.

The role of other behavioral cognitive factors could also be examined to explain cultural intelligence in future research. Some other mediating or moderating variables could be introduced to better explain this model. The unit of analysis in this study was expatriate employees working in Saudi Arabia. Future research could focus on local employees to examine how interactions with expatriate employees affect local employees' knowledge resources and individual and team creativity. In this study, knowledge sharing with other expatriates and with HCNs was modeled in both cases as a composite second-order construct consisting of two similar first-order reflective dimensions:

knowledge donating and knowledge collecting. Future studies could use these two constructs at the first-order level to predict which dimension (knowledge donating or knowledge collecting) has a stronger effect on individual and team creativity. The data were cross-sectional rather than longitudinal, which prevents us from interpreting the time sequence of the relationships among the main variables. Interpretations of causality among variables should be made with caution. Therefore, longitudinal research could provide additional insight into probable causes to establish the underlying relationships more firmly. Finally, the survey data for the study were collected from the same source using the same method, so they may suffer from a certain degree of bias.

References

Alhamad, H. S. (2014). The labor market of Saudi Arabia: Foreign workers, unemployment and minimum wage. *Inquiries*, *6*(6), 1–2. Retrieved from http://www.inquiriesjournal.com/articles/905/the-labor-market-in-saudi-arabia-foreign-workers-unemployment-and-minimum-wage.

Ali, I., Ali, M., Badghish, S., & Baazeem, T. A. S. (2018). Examining the role of childhood experiences in developing altruistic and knowledge sharing behaviors among children in their later life: A Partial Least Squares (PLS) path modeling approach. *Sustainability*, *10*(2), 292.

Ali, I., Musawir, A. U., & Ali, M. (2018). Impact of knowledge sharing and absorptive capacity on project performance: The moderating role of social processes. *Journal of Knowledge Management*, *22*(2), 453–477.

Alkhuraiji, A., Liu, S., Oderanti, F. O., Annansingh, F., & Pan, J. (2014). Knowledge network modelling to support decision-making for strategic intervention in IT project-oriented change management. *Journal of Decision Systems*, *23*(3), 285–302.

Alkhuraiji, A., Liu, S., Oderanti, F. O., & Megicks, P. (2016). New structured knowledge network for strategic decision-making in IT innovative and implementable projects. *Journal of Business Research*, *69*, 1534–1538.

Amabile, T. M. (1983). The social psychology of creativity: A componential conceptualization. *Journal of Personality and Social Psychology*, *45*, 357–376.

Amabile, T. M. (1988). A model of creativity and innovation in organizations. In B. M. Staw, & L. L. Cummings (Vol. Eds.), *Research in organizational behavior*. *vol*. *10*. *Research in organizational behavior* (pp. 123–167). Greenwich, CT: JAI.

Amabile, T. M. (1996). *Creativity in context: Update to the social psychology of creativity*. UK: Hachette.

Anderson, N., De Dreu, C. K., & Nijstad, B. A. (2004). The routinization of innovation research: A constructively critical review of the state-of-the science. *Journal of Organizational Behavior*, *25*, 147–173.

Anderson, N., Potočnik, K., & Zhou, J. (2014). Innovation and creativity in organizations a state-of-the-science review, prospective commentary, and guiding framework. *Journal of Management*, *40*, 1297–1333.

Ang, S., & Van Dyne, L. (2008). Conceptualization of cultural intelligence: Definition, distinctiveness, and nomological network. In S. Ang, & L. Van Dyne (Eds.). *Handbook of cultural intelligence: Theory*, *measurement*, *and applications* (pp. 3–15). New York: M. E. Sharpe.

Astrachan, C. B., Patel, V. K., & Wanzenried, G. (2014). A comparative study of CB-SEM and PLS-SEM for theory development in family firm research. *Journal of Family Business Strategy*, *5*(1), 116–128.

Bai, Y., Lin, L., & Li, P. P. (2016). How to enable employee creativity in a team context: A cross-level mediating process of transformational leadership. *Journal of Business Research*, *69*(9), 3240–3250.

Bain, P. G., Mann, L., & Pirola-Merlo, A. (2001). The innovation imperative: The relationships between team climate, innovation, and performance in research and development teams. *Small Group Research*, *32*(1), 55–73.

Barczak, G., Lassk, F., & Mulki, J. (2010). Antecedents of team creativity: An examination of team emotional intelligence, team trust and collaborative culture. *Creativity and Innovation Management*, *19*(4), 332–345.

Barron, F., & Harrington, D. M. (1981). Creativity, intelligence, and personality. In M. R. Rosenzweig, & L. W. Porter (Eds.). *Annual review of psychology* (pp. 439–476). Palo Alto, CA: Annual Reviews.

Becker, J. M., Klein, K., & Wetzels, M. (2012). Hierarchical latent variable models in PLS-SEM: Guidelines for using reflective-formative type models. *Long Range Planning*, *45*(5–6), 359–394.

Bogilovic, S., Cerne, M., & Skerlavaj, M. (2017). Hiding behind a mask? Cultural intelligence, knowledge hiding, and individual and team creativity. *European Journal of Work and Organizational Psychology*, *26*(5), 710–723.

Bouty, I. (2000). Interpersonal and interaction influences on informal resource exchanges between R&D researchers across organizational boundaries. *Academy of Management Journal*, *43*(1), 50–65.

Cabrera, E. F., & Cabrera, A. (2005). Fostering knowledge sharing through people management practices. *International Journal of Human Resource Management*, *16*, 720–735.

Cannon-Bowers, J. A., Oser, R., & Flanagan, D. C. (1992). Work teams in industry: A selected review and pro-posed framework. In R. W. Swezey, & E. Salas (Eds.). *Teams: Their training and performance* (pp. 355–377). Norwood, NJ: Ablex.

Chin, W. W. (2010). How to write up and report PLS analyses. *Handbook of partial least squares* (pp. 655–690). Berlin, Heidelberg: Springer.

Cohen, W. M., & Levinthal, D. A. (1990). Absorptive capacity: A new perspective on learning and innovation. *Administrative Science Quarterly*, *35*(1), 128–152.

Damodaran, L., & Olphert, W. (2000). Barriers and facilitators to the use of knowledge management systems. *Behavior & Information Technology*, *19*(6), 405–413.

Davenport, T. H., & Prusak, L. (1998). *Working knowledge: How organizations manage what they know*. Boston, MA: Harvard Business School Press.

Farr, J. L. (1990). Facilitating individual role innovation. In M. A. West, & J. L. Farr (Eds.). *Innovation and cre-ativity at work: Psychological and organizational strategies* (pp. 207–230). Chichester, England: Wiley.

Faul, F., Erdfelder, E., Lang, A. G., & Buchner, A. (2007). G* Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods*, *39*(2), 175–191.

Fornell, C., & Larcker, D. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, *18*, 39–50.

Foss, N. J., & Pedersen, T. (2002). Transferring knowledge in MNCs: The role of sources of subsidiary knowledge and organizational context. *Journal of International Management*, *8*(1), 49–67.

Gefen, D., & Straub, D. (2005). A practical guide to factorial validity using PLS-Graph: Tutorial and annotated example. *Communications of the Association for Information Systems*, *16*(1), 5.

George, J. M. (2007). Creativity in organizations. *The Academy of Management Annals*, *1*, 439–477.

Gilson, L. L., & Shalley, C. E. (2004). A little creativity goes a long way: An examination of teams' engagement in creative processes. *Journal of Management*, *30*, 453–470.

Gong, Y., Kim, T.-Y., Zhu, J., & Lee, D. R. (2013). A multilevel model of team goal orientation, information exchange, and creativity. *Academy of Management Journal*, *56*, 827–851.

Goodman, P. S., Ravlin, E. C., & Argote, L. (1986). Current thinking about groups: Setting the stage for new ideas. In P. S. Goodman (Ed.). *Designing effective work groups* (pp. 1–34). San Francisco: Jossey-Bass.

Grant, R. M. (1996). Toward a knowledge-based theory of the firm. *Strategic Management Journal*, *17*, 109–122.

Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2017). *A primer on partial least squares structural equation modeling (PLS-SEM)* (2nd ed.). Thousand Oaks: Sage.

Hair, J. F., Sarstedt, M., Ringle, C. M., & Gudergan, S. P. (2017). *Advanced issues in partial least squares structural equation modeling*. Incorporated: SAGE Publications.

Hair, J. F., Sarstedt, M., Ringle, C. M., & Mena, J. A. (2012). An assessment of the use of partial least squares structural equation modeling in marketing research. *Journal of the Academy of Marketing Science*, *40*(3), 414–433.

Hayes, A. F. (2017). *Introduction to mediation*, *moderation*, *and conditional process analysis: A regression-based approach*. Guilford Publications.

Heizmann, H., Fee, A., & Gray, S. J. (2018). Intercultural knowledge sharing between expatriates and host-country nationals in Vietnam: A practice-based study of communicative relations and power dynamics. *Journal of International Management*, *24*(1), 16–32.

Henseler, J. (2017). Bridging design and behavioral research with variance-based structural equation modeling. *Journal of Advertising*, *46*(1), 178–192.

Henseler, J., Hubona, G., & Ray, P. A. (2016). Using PLS path modeling in new technology research: Updated guidelines. *Industrial Management & Data Systems*, *116*(1), 2–20.

Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, *43*(1), 115–135.

Hernández-Mogollon, R., Cepeda-Carrión, G., Cegarra-Navarro, J. G., & Leal-Millán, A. (2010). The role of cultural barriers in the relationship between open-mindedness and organizational innovation. *Journal of Organizational Change Management*, *23*(4), 360–376.

Hocevar, D., & Bachelor, P. (1989). A taxonomy and cri-tique of measurements used in the study of creativ-ity. In J. A. Glover, R. R. Ronning, & C. R. Reynolds (Eds.). *Handbook of creativity* (pp. 53–76). New York: Plenum Press.

Hogan, S. J., & Coote, L. C. (2014). Organizational culture, innovation, and performance A test of Schein's model. *Journal of Business Research*, *67*(8), 1609–1621.

Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, *6*(1), 1–55.

Ismail, M. (2015). Conceptualizing knowledge transfer between expatriates and host country nationals: The mediating effect of social capital. *Cogent Business & Management*. https://doi.org/10.1080/23311975.2015.1101803.

Ismail, M., Sobri, S. S., Zulkifly, N. A., Hamzah, S. R., & Yamato, E. (2016). Knowledge transfer between expatriate and host country nationals: Contribution of individual and social capital factors. *Organizations and Markets in Emerging Economies*, *7*(2), 65–87.

Kock, N. (2015). One-tailed or two-tailed P values in PLS-SEM? *International Journal of e-Collaboration*, *11*(2), 1–7.

Kozlowski, S. W., & Klein, K. J. (2000). A multilevel approach to theory and research in organizations: Contextual, temporal and emergent processes. In K. J. Klein, & S. W. Kozlowski (Eds.). *Multilevel theory*, *research and methods in organizations: Foundations*, *extensions and new directions* (pp. 3–90). San Francisco: Jossey-Bass.

Lauring, J. (2009). Managing cultural diversity and the process of knowledge sharing: A case from Denmark. *Scandinavian Journal of Management*, *25*, 385–394.

Leal-Rodríguez, A. L., Ariza-Montes, J. A., Roldán, J. L., & Leal-Millán, A. G. (2014). Absorptive capacity, innovation and cultural barriers: A conditional mediation model. *Journal of Business Research*, *67*(5), 763–768.

Liao, H., Liu, D., & Loi, R. (2010). Looking at both sides of the social exchange coin: A social cognitive perspective on the joint effects of relationship quality and differentiation on creativity. *Academy of Management Journal*, *53*, 1090–1109.

Liao, S., & Chen, C. (2018). Leader-member exchange and employee creativity: Knowledge sharing: The moderated mediating role of psychological contract.

Leadership and Organization Development Journal, *39*(3), 419–435.
Lin, H. (2006). Impact of organizational support on organizational intention to facilitate knowledge sharing. *Knowledge Management Research and Practice*, *4*, 26–35.
Lopez-Cabrales, A., Pérez-Luño, A., & Cabrera, R. V. (2009). Knowledge as a mediator between HRM practices and innovative activity. *Human Resource Management*, *48*, 485–503.
Ma, Y., Cheng, W., Ribbens, B. A., & Zhou, J. (2013). Linking ethical leadership to employee creativity: Knowledge sharing and self-efficacy as mediators. *Social Behavior and Personality: An International Journal*, *41*(9), 1409–1419.
Michailova, S., & Hutchings, K. (2006). National cultural influences on knowledge sharing: A comparison of China and Russia. *Journal of Management Studies*, *43*(3), 0022–2380.
Mohrman, S., Cohen, S., & Mohrman, A. (1995). *Designing team-based organizations: New forum for knowledge work*. San Francisco: Jossey-Bass.
Neuman, G. A., & Wright, J. (1999). Team effectiveness: Beyond skills and cognitive ability. *Journal of Applied Psychology*, *84*, 376–389.
Nonaka, I. (1994). A dynamic theory of organizational knowledge creation. *Organization Science*, *5*(1), 14–37.
O'Dell, C., & Grayson, C. J. (1998). If only we knew what we know: Identification and transfer of internal best practices. *California Management Review*, *40*(3), 154–174.
Ogbeibu, S., Senadjki, A., & Gaskin, J. (2018). The moderating effect of benevolence on the impact of organisational culture on employee creativity. *Journal of Business Research*, *90*, 334–346.
Pelled, L. H., Eisenhardt, K. M., & Xin, K. R. (1999). Exploring the black box: An analysis of work group diversity, conflict, and performance. *Administrative Science Quarterly*, *44*, 1–28.
Pirola-Merlo, A., & Mann, L. (2004). The relationship between individual and team creativity: Aggregating across people and time. *Journal of Organizational Behavior*, *25*, 235–257.
Poortvliet, P. M., & Giebels, E. (2012). Self-improvement and cooperation: How exchange relationships promote mastery-approach driven individuals' job outcomes. *European Journal of Work and Organizational Psychology*, *21*(3), 392–425.
Razzaq, S., Shujahat, M., Hussain, S., Nawaz, F., Wang, M., Ali, M., & Tehseen, S. (2018). Knowledge management, organizational commitment and knowledge-worker performance: The neglected role of knowledge management in the public sector. *Business Process Management Journal*. https://www.emeraldinsight.com/doi/abs/10.1108/BPMJ-03-2018-0079.
Rego, A., Sousa, F., Pina E Cunha, M., Correia, A., & Saur-Amaral, I. (2007). Leader self-reported emotional intelligence and perceived employee creativity: An exploratory study. *Creativity and Innovation Management*, *16*, 250–264.
Richard, O. C., Barnett, T., Dwyer, S., & Chadwick, K. (2004). Cultural diversity in management, firm performance, and the moderating role of entrepreneurial orientation dimensions. *Academy of Management Journal*, *47*, 255–266.
Richter, A. W., Hirst, G., van Knippenberg, D., & Baer, M. (2012). Creative self-efficacy and individual creativity in team contexts: Cross-level interactions with team informational resources. *Journal of Applied Psychology*, *97*, 1282–1290.
Richter, N. F., Cepeda, G., Roldán, J. L., & Ringle, C. M. (2015). European management research using partial least squares structural equation modeling (PLS-SEM). *European Management Journal*, *33*(1), 1–3.
Rigdon, E. E. (2012). Rethinking partial least squares path modeling: In praise of simple methods. *Long Range Planning*, *45*(5–6), 341–358.
Rigdon, E. E., Sarstedt, M., & Ringle, C. M. (2017). On comparing results from CB-SEM and PLS-SEM: Five perspectives and five recommendations. *Marketing ZFP*, *39*(3), 4–16.
Ringle, C. M., Wende, S., & Becker, J. M. (2015). *SmartPLS 3*. Boenningstedt: SmartPLS GmbH. http://www.smartpls.com.
Roldán, J. L., & Sánchez-Franco, M. J. (2012). Variance-based structural equation modeling: Guidelines for using partial least squares. *Research methodologies, innovations and philosophies in software systems engineering and information systems*. *193*.
Sánchez-Franco, M. J., & Roldán, J. L. (2010). Expressive aesthetics to ease perceived community support: Exploring personal innovativeness and routinised behaviour as moderators in Tuenti. *Computers in Human Behavior*, *26*(6), 1445–1457.
Sarstedt, M., Hair, J. F., Ringle, C. M., Thiele, K. O., & Gudergan, S. P. (2016). Estimation issues with pls and cbsem: Where the bias lies!. *Journal of Business Research*, *69*, 3998–4010.
Sarstedt, M., Ringle, C. M., & Hair, J. F. (2017). Partial least squares structural equation modeling. In C. Homburg, M. Klarmann, & A. Vomberg (Eds.). *Handbook of market research* (pp. 1–40). Cham: Springer International Publishing.
Sarstedt, M., Ringle, C. M., Henseler, J., & Hair, J. F. (2014). On the emancipation of PLS-SEM: A commentary on Rigdon (2012). *Long Range Planning*, *47*(3), 154–160.
Saudi Arabia Labor Market Report (2016). Ministry of labor and social development kingdom of Saudi Arabia's Saudi Arabia labor market report, Saudi Arabia lahore market report. Retrieved from https://irp-cdn.multiscreensite.com/.../G20%20Labor%20Market%20Report%202016.
Schlägel, C., & Sarstedt, M. (2016). Assessing the measurement invariance of the four-dimensional cultural intelligence scale across countries: A composite model approach. *European Management Journal*, *34*(6), 633–649.
Scott, S. G., & Bruce, R. A. (1994). Determinants of innovative behavior: A path model of individual innovation in the workplace. *Academy of Management Journal*, *37*(3), 580–607.
Shalley, C. E. (1991). Effects of productivity goals, creativity goals, and personal discretion on individual creativity. *Journal of Applied Psychology*, *76*, 179–185.
Shalley, C. E., Zhou, J., & Oldham, G. R. (2004). The effects of personal and contextual characteristics on creativity: Where should we go from here? *Journal of Management*, *30*, 933–958.
Sigala, M., & Chalkiti, K. (2015). Knowledge management, social media and employee creativity. *International Journal of Hospitality Management*, *45*, 44–58.
Sternberg, R. J., & Lubart, T. I. (1999). The concept of creativity: Prospects and paradigms. In R. J. Stern-berg (Ed.). *Handbook of creativity* (pp. 3–16). New York: Cambridge University Press.
Taggar, S. (2002). Individual creativity and group ability to utilize individual creative resources: A multilevel model. *Academy of Management Journal*, *45*(2), 315–330.
Tajfel, H., & Turner, J. C. (1979). An integrative theory of intergroup conflict. *The social psychology of intergroup relations*. *33(47)*. *The social psychology of intergroup relations* (pp. 74–). .
Tajfel, H., & Turner, J. C. (1986). The social identity theory of intergroup behavior. In S. Worchel, & W. Austin (Eds.). *Psychology of intergroup relations* (pp. 7–24). Chicago, IL: Nelson-Hall.
Tesluk, P. E., Farr, J. L., & Klein, S. R. (1997). Influences of organizational culture and climate on individual cre-ativity. *Journal of Creative Behavior*, *31*, 27–41.
Thomas, D. C., Elron, E., Stahl, G., Ekelund, B. Z., Ravlin, E. C., & Cerdin, J. L. (2008). Cultural intelligence: Domain and assessment. *International Journal of Cross-Cultural Management*, *8*, 123–143.
Tierney, P., & Farmer, S. M. (2002). Creative self-efficacy: Its potential antecedents and relationship to creative performance. *Academy of Management Journal*, *45*, 1137–1148.
Turner, J. C. (1985). Social categorization and the self-concept: A social cognitive theory of group behavior. *Advances in group processes: Theory and research*. *2*. *Advances in group processes: Theory and research* (pp. 77–122).
Van den Hooff, B., & de Leeuw van Weenen, F. (2004). Committed to share: Commitment and CMC use as antecedents of knowledge sharing. *Knowledge and Process Management*, *11*(1), 13–24.
Van den Hooff, B., & Hendrix, L. (2004). Eager and willingness to share: The relevance of different knowledge sharing attitudes. Retrieved from on 05 November 2017 http://www2.warwick.ac.uk/fac/soc/wbs/conf/olkc/archive/oklc5/papers/d-3_hooff.pdf.
Van Knippenberg, D., De Dreu, C. K. W., & Homan, A. C. (2004). Work group diversity and group performance: An integrative model and research agenda. *Journal of Applied Psychology*, *89*, 1008–1022.
Van Knippenberg, D., & Schippers, M. C. (2007). Work group diversity. *Annual Review of Psychology*, *58*, 515–541.
Van Riel, A. C., van Riel, A. C., Henseler, J., Henseler, J., Kemény, I., Kemény, I., ... Sasovova, Z. (2017). Estimating hierarchical constructs using consistent partial least squares: The case of second-order composites of common factors. *Industrial Management & Data Systems*, *117*(3), 459–477.
Vlajčić, D., Caputo, A., Marzi, G., & Dabić, M. (2018). Expatriates managers' cultural intelligence as promoter of knowledge transfer in multinational companies. *Journal of Business Research*, *94*, 367–377.
Wang, X. H. F., Kim, T. Y., & Lee, D. R. (2016). Cognitive diversity and team creativity: Effects of team intrinsic motivation and transformational leadership. *Journal of Business Research*, *69*(9), 3231–3239.
Williams, K. Y., & O'Reilly, C. A. (1998). Demography and diversity in organizations: A review of 40 years of research. In B. M. Staw, & R. Sutton (Vol. Eds.), *Research in organizational behavior*. *20*. *Research in organizational behavior* (pp. 77–140). Greenwich, CT: JAI.
Woodman, R. W., Sawyer, J. E., & Griffin, R. W. (1993). Toward a theory of organizational creativity. *Academy of Management*, *18*, 293–321.
Wright, R. T., Campbell, D. E., Thatcher, J. B., & Roberts, N. H. (2012). Operationalizing multidimensional constructs in structural equation modeling: Recommendations for IS research. *CAIS*, *30*, 23.
Zhou, J., & George, J. M. (2001). When job dissatisfaction leads to creativity: Encouraging the expression of voice. *Academy of Management Journal*, *44*, 682–696.