Does cultural intelligence increase work engagement? The role of idiocentrism-allocentrism and organizational culture in MNCs

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Abstract
Purpose – The purpose of this paper is to examine the effects of cultural intelligence (CQ), idiocentrism-allocentrism and organizational culture on work engagement in a multinational organization from the perspective of conservation of resources theory.

Design/methodology/approach – The sample consisted of 219 employees of a multinational company (MNC). Partial least squares–structural equation modeling was used to test the research model.

Findings – The results suggest that CQ is positively related to work engagement and that this relationship is moderated by employees’ idiocentrism-allocentrism, as well as by the adaptability dimension of organizational culture.

Research limitations/implications – Greater generalizability of the findings could be achieved with a more geographically dispersed sample. Other cultural dimensions, as well as personal and organizational characteristics, should be considered in order to more clearly ascertain the relationships between these variables.

Practical implications – The findings suggest that CQ is a powerful tool for developing employee engagement within MNCs. Furthermore, a highly adaptive organizational culture and consideration of employees’ cultural values are important in order to enhance the effect of CQ on engagement.

Originality/value – This study identifies relevant resources that can aid in managing a diverse workforce and increasing employee engagement in companies that operate across national borders.

Keywords Organizational culture, Cultural intelligence, Engagement, Idiocentrism-allocentrism

Paper type Research paper

Introduction
Multinational companies (MNCs) are uniquely complex in their interactions and group dynamics, and the uncertainty, cultural diversity, constant changes and work-related stress typical of MNCs can lead to conflict and inefficient business processes (Farndale et al., 2015; Trefry, 2006). For example, communication becomes more difficult and time consuming; creating common understanding requires more effort; and different expectations may lead to misunderstandings, conflict and negative evaluations of other employees (Trefry, 2001). Given these potential challenges, skills and capabilities that allow employees to adapt to and interconnect with people from various cultures may be considered crucial resources in culturally diverse settings (Karma and Vedina, 2009).

In this sense, cultural intelligence (CQ), defined by Earley and Ang (2003) as the capability to function and manage multicultural settings, is a crucial asset for work performance in MNCs. This concept has gained considerable attention since its introduction (Ng et al., 2012; Ott and Michailova, 2016). Individuals with high CQ are culturally competent; they have a repertoire of cognitive, behavioral and motivational abilities to work effectively with members of different cultures.
cultures and to adapt to multiple environments. CQ’s great appeal across multiple disciplines is based on the understanding that not only cognitive intelligence is needed to be comfortable and effective in multicultural settings (Ott and Michailova, 2016).

Although the positive effect of CQ on employee performance outcomes has been thoroughly documented, evidence of its influence on motivational outcomes such as engagement remains scarce (Leung et al., 2014; Ng et al., 2012; Ott and Michailova, 2016). Employee engagement is considered a crucial element because of its ability to alter the perception of demands in the environment, reducing stress and facilitating adjustment (Bakker et al., 2007; Lauring and Selmer, 2014; Rattrie, 2013; Selmer and Lauring, 2016). Scholars and practitioners have recognized the need to explore the potential role of engagement in the specific context of MNCs, as it may lead employees to take initiative, manage high geographic dispersion and cope more effectively with the complexities of boundary-crossing activities that characterize this work environment (Lauring and Selmer, 2014). Although engagement has been associated with lower turnover and higher performance in MNCs, previous studies have found that cultural factors can influence antecedents of employee engagement (Farndale and Murrer, 2015; Kelliher et al., 2013; Shuck et al., 2011).

Consequently, some authors highlight the need to include cultural factors explicitly and more prominently as moderators in studies measuring the impact of CQ on various outcomes such as engagement (Ott and Michailova, 2016). Combinations of personal characteristics and organization-specific cultural values may lead to differences in perceptions, attitudes and behaviors, as well as in the ability to effectively manage culturally diverse settings in an international work context (e.g. Ang and Van Dyne, 2008; Karma and Vedina, 2009; Nakagawa et al., 2017).

Within this context, conservation of resources (COR) theory (Hobfoll, 1989, 2001) is a valuable framework because it emphasizes the value of resources and how ranking of resources is influenced by personal experiences, cultural factors, and environmental changes (Halbesleben et al., 2014; Hobfoll, 2001). Resources are defined as anything that the individual perceives that can help in goal attainment, including objects, personal characteristics, conditions or energy. The availability of resources can facilitate motivational processes that can lead to employee engagement (Bakker and Demerouti, 2007; Gorgievsky and Hobfoll, 2008; Hobfoll, 2001).

COR theory suggests that core cultural values and organizational culture are important factors that can shape the behavior and attitudes of employees and help them cope with changes in the environment (Chen et al., 2015). As such, we propose that personal cultural values such as idiocentrism-allocentrism and employees’ evaluations of organizational culture can have a significant impact on employee engagement, as a consequence of their ability to structure employees’ interpretation and understanding of the environment (Farndale and Murrer, 2015; Ralston et al., 2010; Trefry, 2006; Triandis, 1994). Furthermore, both variables have been found to moderate the impact of job and personal characteristics on motivational outcomes such as commitment and satisfaction (Aktaş, 2014; Chaudhry and Shah, 2011; Yijing and Ahmad, 2009).

Our study makes several contributions to the literature. First, it addresses a gap in the literature regarding the effect of CQ on motivational outcomes such as engagement, an area of research that has been neglected so far. Although the positive effects of CQ on several adjustment and performance outcomes have been thoroughly documented, only few studies have examined the impact of CQ on motivational such as job involvement (Chen, 2015) and employee engagement (Kodwani, 2012).

Second, based on COR theory, this study identifies CQ as a personal resource that is significant for the particular challenges facing employees in multinational organizations. Our results offer evidence of the overall impact of CQ on employee engagement. Third, this research further supports the claim that resource values depend on the context in which an individual operates, as we examine the extent to which cultural factors influence this relationship between CQ and engagement (Halbesleben et al., 2014).
Finally, we tested COR theory in an international setting. COR theory studies initially focused on the individual unit and then extended to organizational settings (Halbesleben et al., 2014). However, to the best of our knowledge, COR theory has not been investigated in a multicultural context.

CQ and engagement

CQ is a multidimensional construct composed of four dimensions: metacognitive CQ entails the mental processes a person uses to acquire and understand cultural knowledge; cognitive CQ comprises the knowledge of norms, practices and conventions in different cultures acquired from education and personal experiences; motivational CQ reflects the capability to direct attention and energy toward learning about new cultures as well as functioning in situations characterized by cultural differences; and behavioral CQ reflects the ability to display appropriate verbal and nonverbal actions when interacting with people from different cultures (Ang et al., 2007). As a whole, CQ entails the development of an overall perspective and repertoire that allows a person to understand and adapt to a myriad of cultural contexts. Such adjustments require intentional effort to interpret unfamiliar behavior and situations in order to identify what is universal, cultural or idiosyncratically personal to an individual in any given situation (Ng, Van Dyne and Ang, 2009; Van Dyne et al., 2010).

We propose that CQ should be considered a valuable personal resource, as it can aid individuals in successfully self-regulating and adjusting to culturally diverse organizational settings (Tay et al., 2008). Within COR theory, personal resources are defined as positive self-evaluations that are linked to resiliency and affect individuals’ perceived ability to successfully control and impact their environment (Hobfoll et al., 2003). As such, individuals with higher CQ may have greater drive and desire to develop personal and work resources to facilitate their intercultural business tasks and interactions and help ease work stress. In addition, high CQ individuals can cognitively plan and manage the potential stress arising from multicultural interactions because they are better informed and more attentive to the cultural environment. Finally, CQ prevents the loss of other resources relevant to cultural interactions through the repeated display of a broad repertoire of verbal and nonverbal behaviors (Tay et al., 2008).

Like job resources, personal resources may jumpstart a motivational process that leads to employee engagement by fulfilling basic psychological needs of autonomy, relatedness and competence (Deci et al., 2001; Ryan and Deci, 2000; Van den Broeck et al., 2008, 2010; Xanthopoulou et al., 2009). While research has defined and operationalized engagement in different ways (e.g. Bailey et al., 2017), scholars have generally viewed it as a motivational construct that captures the active allocation of personal resources, including one’s physical, emotional and cognitive energies, toward role-related tasks (Christian et al., 2011; Kahn, 1990, 1992). Engagement is a positive affective-motivational work-related state of fulfillment that is characterized by vigor, dedication and absorption. Engaged employees typically have energized attitudes, are fully immersed and dedicated, and display high levels of enthusiasm about their work (Macey and Schneider, 2008). According to JD-R theory, personal resources can lead to positive self-evaluations that can, in turn, result in positive outcomes such as motivation and engagement (Hakanen and Roodt, 2010).

Previous research has found that high CQ can help satisfy employees’ needs, which may lead to greater engagement in culturally diverse settings. For example, high CQ can help employees successfully navigate the potential challenges of diversity, such as communication (Bücker et al., 2014), cooperation (Imai and Gelfand, 2010) and negotiation (Groves et al., 2015). All this in turn can lead to a greater sense of competence, since high CQ employees are more confident in their abilities to manage intercultural interactions efficiently and may feel more comfortable when these exchanges occur (Templer et al., 2006). High CQ can also lead to a greater sense of autonomy, as employees feel more capable of
exerting influence and control their environment since CQ allows them to better monitor, analyze and adapt their behaviors (Tay et al., 2008). Finally, high CQ can fulfill a need for relatedness as individuals are more likely to overcome negative reactions and misunderstandings that arise from social categorization processes by developing a more accurate understanding of the cultural background of other members of the organization (Rockstuhl and Ng, 2008; Triandis, 2006). Such understanding, in turn, can facilitate employees’ feeling of integration and acceptance within the organization, as CQ can help employees bridge the differences among themselves (Flaherty, 2008).

Extrapolating from the above, we propose the following hypothesis:

\[ H1. \] CQ is positively related to employee engagement.

The moderating role of idiocentrism-allocentrism

Idiocentrism-allocentrism represents individual-level orientations of individualism and collectivism. Although society’s influence may cause one of these two dimensions to be higher on average, individuals can differ from their society’s trends because personal experiences also play an important role (Triandis, 1989). As an individual-level variable, idiocentrism and allocentrism can be characterized as a set of values that may affect the way a person feels, behaves and controls the situations they face in their work environment (Oishi et al., 1998; Ramamoorthy and Flood, 2002). Moreover, COR theory suggests that values can help achieve goals by building resiliency, providing a degree of flexibility necessary to adapt to change and facilitating the acquisition of additional resources (Alvaro et al., 2010).

Specifically, a person with an idiocentric orientation emphasizes notions such as independence, uniqueness and self-reliance, which can result in perceiving him/herself as separate from others and giving priority to personal goals over collective goals. Allocentrists, on the other hand, emphasize the importance of harmony, belongingness and subservience to the wishes of the group or organization (Oishi et al., 1998; Robert and Wasti, 2002; Triandis, 1996). As a consequence, allocentric individuals view themselves as inseparable from other group members and may subordinate their personal goals to achieve the goals of the collective (Triandis, 1996). As such, research identifies idiocentrism-allocentrism not only as a salient theme that people use to interpret their environment but also as a relevant moderator between job and personal characteristics and organizational outcomes (Aktaş, 2014; Ilies et al., 2007; Nahum-Shani and Somech, 2011; Robert and Wasti, 2002).

Along these lines, while both idiocentrism and allocentrism can be valuable to an individual, we propose that having a higher allocentric orientation may facilitate an employee’s adaptation and effectiveness within a culturally diverse setting since the value of a resource can vary significantly depending on the context and on how the environment changes (Halbesleben et al., 2014). This is because values act as motivational vectors grounded in universal, yet hierarchically ordered, values (Halbesleben et al., 2014, Morelli and Cunningham, 2012).

In this regard, an allocentric orientation emphasizes the importance of agreement and cooperation within the organization beyond personal or cultural differences in order to achieve organizational goals (Cox et al., 1991; Erdogan and Liden, 2006). Individuals with an allocentric tendency have been found to be more susceptible to affective influences from other team members, increasing interdependence and the ways they feel connected to each other (Ilies et al., 2007). We propose that a high allocentric orientation could strengthen the relationship between CQ and engagement by increasing the perceived importance of CQ as a useful personal resource for interacting with other members and adapting to the organizational environment. An idiocentric orientation that emphasizes individuality and self-reliance, on the other hand, may reduce employees’ willingness to cooperate with one another and adapt to different cultural practices and values (Chatman and Barsade, 1995; Chen et al., 2007; Robert and Wasti, 2002). Therefore, highly idiocentric individuals might attribute less importance to CQ within
organizational contexts, which could decrease employee engagement as interactions with members of different cultural backgrounds can be more challenging.

Extrapolating from the above leads us to the following hypotheses:

$H_2$. Idiocentrism-allocentrism moderates the relationship between CQ and engagement, such that employees with high allocentrism will show a stronger relationship between CQ and employee engagement than will employees with an idiocentric orientation.

The moderating role of individual perceptions of organizational culture

Denison and colleagues (Denison, 1990; Denison and Mishra, 1989) conceptualized organizational culture as the underlying values, beliefs, and principles of an organization’s management system as well as the practices and behaviors that both exemplify and reinforce those basic principles. Denison’s model of organizational culture proposes four dimensions (involvement, consistency, mission and adaptability) that allow an organizational culture to be described broadly according to its focus (internal vs external) and stability (flexible vs stable) (Denison, 1990). Involvement refers to the degree to which the organization focuses on developing, informing and involving people, with the aim of increasing employee commitment. Furthermore, involvement entails growing employees’ capacity to operate under conditions of autonomy and placing value on working cooperatively towards common goals (Denison, 1990). Consistency entails the existence of a cohesive set of organizational systems and processes based on certain values, designed to achieve greater integration and coordination across the organization (Gillespie et al., 2008). Mission provides purpose and meaning to the organization by establishing clear roles and external goals, thereby providing significance and direction for employees (Gillespie et al., 2008). Finally, the dimension of adaptability refers to the organization’s capacity for internal change in response to external conditions (Denison and Mishra, 1995).

Although Denison’s model proposes that all four dimensions are present in effective organizations, only involvement and adaptability may be related to successfully managing cultural diversity, as their presence indicates a flexible organization that can change quickly in response to the environment (Denison et al., 2006). Consistency and mission, on the other hand, are indicators of stability and integration that can promote alignment among employees and provide them with a sense of purpose within their organization, yet both dimensions can also lead to resistance to change, as previous values and processes are heavily ingrained across all organizational levels (Denison et al., 2006; Denison and Neale, 2000).

Previous studies have found that organizational culture is a relevant factor when managing diverse contexts because of its impact on openness to diversity, human resource management practices and the organization’s diversity-related expectations and incentives (McMillan-Capehart, 2005; Patrick and Kumar, 2012). Organizational culture has been related to several outcomes for both employees and organizations.

Furthermore, COR theory suggests that a strong organizational culture is crucial to cope with changing surroundings and unanticipated stress, because it impacts the amount of resources that employees have at their disposal (Hobfoll, 2012). In this regard, an organizational culture can help maintain the environmental conditions that support and protect the resources of individuals and the organization while facilitating their internal transactions in order to accomplish the organizational mission (Chen et al., 2015).

Since a culture of high adaptability entails receiving, translating and interpreting signals from the environment, it could increase employees’ individual awareness of the possible effects of growing diversity, both internal and external to the organization (Gillespie et al., 2008). Perceptions of a high involvement culture, on the other hand, could emphasize teamwork and promote affiliation with the organization, therefore fostering better relationships among employees by ameliorating in-group/out-group differences and emphasizing an organizational
identity that goes beyond surface-level differences (Guidroz et al., 2005; Jayne and Dipboye, 2004). We suggest that employees’ perceptions of organizational adaptability and involvement can strengthen the relationship between CQ and engagement by fostering a positive perception of cross-cultural interactions and endorsing behaviors that demonstrate employees’ use of their CQ.

In this regard, an adaptive organizational culture’s heightened awareness of cultural diversity can lead to the internal changes needed to gain knowledge and develop capabilities in order to take advantage of such diversity; whereas an involvement culture that emphasizes the importance of cooperation among employees can prompt them to develop abilities that serve the same purpose (Gillespie et al., 2008; Jayne and Dipboye, 2004; Ng, Tan and Ang, 2009). This is in line with trait activation theory, which states that a personal disposition (e.g. CQ) is reinforced when a person feels that the organizational context is receptive (Chen et al., 2012; Tett and Burnett, 2003).

Although, to the best of our knowledge, no previous study has examined these proposed relationships, organizational culture has been found to operate as an antecedent of CQ (Ng, Tan and Ang, 2009) and engagement (Albrecht, 2012; Wollard and Shuck, 2011). Furthermore, other studies show that organizational culture can be a relevant moderator between job and personal characteristics and motivational outcomes such as commitment and satisfaction (Chaudhry and Shah, 2011; Yiing and Ahmad, 2009).

Extrapolating from the above, we propose the following hypotheses:

\[ H3a. \] Employees’ perceptions of organizational adaptability moderates the relationship between CQ and employee engagement such that the relationship will be stronger in organizational cultures that are perceived to be high in adaptability.

\[ H3b. \] Employees’ individual perception of involvement moderates the relationship between CQ and employee engagement such that the relationship will be stronger in organizational cultures that are perceived to be high in involvement.

The research model appears in Figure 1.

**Method**

**Participants**

This study was conducted among professionals currently working in a multinational geophysical services company. A total of 374 employees participated in the study, and after questionnaires with missing values were eliminated, the final sample consisted of 219 participants.

Of the respondents, 23.4 percent were female. Job tenure was less than one year (11.4 percent), one to three years (27.9 percent), or more than three years (60.7 percent). English was the native

![Figure 1. Structural research model](image-url)
language of 46.1 percent of the participants, and 53.9 percent were native Spanish speakers. Regarding nationality, 26 percent of the respondents were from Peru, 20.5 percent from Colombia, 20 percent from the USA, 16 percent from Canada, 9.1 percent from Bolivia, 4.1 percent from Malaysia, 1.8 percent from Brazil and 2.5 percent from other countries. Regarding work modality, 20.5 percent were expatriates, and 79.5 percent were local employees. The participants worked predominantly in South America (31.8 percent) and North America (61.2 percent), across three main position levels: upper (50.9 percent), middle (21.2 percent) and lower (27.9 percent). HR classified jobs according to the frequency of cross-cultural interactions with professionals from other branches of the company, resulting in three interaction categories: constant engagement in cross-cultural interactions (52.1 percent of the participants), frequent cross-cultural interactions (20 percent) and occasional cross-cultural interactions (27.9 percent).

**Measures**

Because participants were native Spanish or English speakers, both language versions of all instruments were used. A traditional translation/back-translation technique was employed to ensure reliability (Behling and Law, 2000).

Engagement was measured using the short version of the Utrecht Work Engagement Scale (Schaufeli et al., 2002). The instrument comprises nine items (e.g. “My job inspires me”) that represent three subscales: vigor, dedication, and absorption. Items were rated on a seven-point scale ranging from 0 (never) to 6 (always).

Employee perception of organizational culture was measured using the Denison Organizational Culture Survey developed by Denison and Neale (2000). In the present study, participants assessed the involvement (e.g. “Most employees are highly involved in their work”) and adaptability (e.g. “The way things are done is very flexible and easy to change”) dimensions of their organizational culture. The survey consisted of 30 items rated on a five-point Likert scale from 1 (completely disagree) to 5 (completely agree).

CQ was measured using the Cultural Intelligence Scale (CQS) developed by Ang et al. (2007). The CQS measures four dimensions of CQ: motivational, cognitive, metacognitive and behavioral. The 20-item (e.g. “I am conscious of the cultural knowledge I apply to cross-cultural interactions”) scale was scored on a seven-point Likert scale rating from 1 (completely disagree) to 7 (completely agree).

Idiocentrism-allocentrism was measured using a scale developed by Dorfman and Howell (1988) that evaluates the cultural orientation dimension of idiocentrism-allocentrism at the individual level. Six items (e.g. “Group welfare is more important than individual rewards”) were rated on a seven-point Likert scale ranging from 1 (completely disagree) to 7 (completely agree). For the purpose of this study, we operationalized the cultural orientation of allocentrism as high and idiocentrism as low (1 SD above and below the mean, respectively). As a result, a higher score reflects a strong allocentric orientation.

Control variables: to avoid potential confounding effects, we controlled for gender (0 = male, 1 = female), native language (1 = English, 2 = Spanish), frequency of cross-cultural interaction (1 = constant, 2 = frequent, 3 = occasional), nationality (coded in seven nationalities) and work modality (1 = expatriate, 2 = local), as these variables have been associated with CQ and with intercultural interaction (Ang et al., 2007; Jyoti and Kour, 2017; Jiang et al., 2018; Tay et al., 2008). We also included organizational tenure (1 = less than one year, 2 = 1–3 years, 3 = more than three years) and level of position (1 = upper, 2 = middle, 3 = lower) since these variables have been associated with engagement in intercultural environments (Schalk and Van der Linden, 2012).

**Data analyses.** Partial least squares–structural equation modeling (PLS-SEM) was employed using the WarpPLS 5.0 program. We chose PLS because it is a robust causal modeling technique that aims to maximize the dependent construct variance, provides more
accurate estimates of moderation effects than regression analyses, and enables analysis of data in relatively small samples to achieve high levels of statistical power (Chin, 1998). We used PLS-SEM to assess the measurement and research models. PLS-SEM consists of a broad class of methods for modeling relationships between sets of observed variables by means of latent variables. Its primary objective is to maximize explained variance ($R^2$) in the dependent variable, minimize the residual variance of endogenous variables in any regression run by the model, and evaluate data utility by assessing the measurement model (Hair et al., 2011).

Second, to assess the research model, we used the parameter estimates of the structural component of the research model and hypotheses. First, we determined the predictive power of the model ($R^2$ values of the dependent variables) and then analyzed the latent constructs proposed. Additionally, we used bootstrapping to evaluate the statistical significance of the path coefficients. We ran 1,000 bootstrap samples (see Chin, 1998).

To analyze the contribution of the interaction effects to the research model, we compared the $R^2$ for each interaction model with the “main effect” model, which excludes the interaction term ($\Delta R^2$). Then, we examined the differences in $R^2$ to assess the overall effect size $f^2$ for the interaction, where the interaction effects are considered small (0.02), moderate (0.15) and large (0.35) (Cohen, 1988). Notably, as mentioned in Chin et al. (2003), a small effect size does not necessarily indicate an irrelevant effect.

Finally, we evaluated the model’s goodness of fit (GoF), defined as global fit (Tenenhaus et al., 2005). The baseline values of the GoF, as suggested by Wetzels et al. (2009), are small $= 0.10$, medium $= 0.25$ and large $= 0.36$.

**Results**

**Preliminary analyses**

The measurement model consisted of four variables with the scale items: CQ (20 items), Idiocentrism and Allocentrism (6 items), Organizational Culture (30 items) and Engagement (9 items). As shown in Table I, our measurement model showed good fit to the data, CFI = 0.97; SRMR = 0.06; RMSEA = 0.07, and all items had significant loadings on the intended latent factors (0.71−0.96, $p < 0.001$). Specifically, the CFI was larger than 0.9 (Goffin 1993), while the value of SRMR was smaller than 0.08 and RMSEA was smaller than 0.07 (Hu and Bentler, 1999; Steiger, 2007).

Table I shows the comparison of this measurement model to a model with one factor, two factors (all moderators variables combined into one factor and CQ and engagement combined into another), and three factors (all moderators variables combined into one factor).

<table>
<thead>
<tr>
<th>Measurement model</th>
<th>df</th>
<th>$\chi^2$</th>
<th>$\chi^2/df$</th>
<th>CFI</th>
<th>SRMR</th>
<th>RMSEA</th>
<th>AIC</th>
<th>BIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. One-factor model</td>
<td>90</td>
<td>662</td>
<td>7.35</td>
<td>0.88</td>
<td>0.11</td>
<td>0.13</td>
<td>721</td>
<td>823</td>
</tr>
<tr>
<td>2. Two-factor model</td>
<td>89</td>
<td>646.05</td>
<td>7.26</td>
<td>0.76</td>
<td>0.12</td>
<td>0.10</td>
<td>708</td>
<td>813</td>
</tr>
<tr>
<td>3. Three-factor model</td>
<td>87</td>
<td>313.81</td>
<td>3.61</td>
<td>0.92</td>
<td>0.07</td>
<td>0.09</td>
<td>379</td>
<td>492</td>
</tr>
<tr>
<td>4. Four-factor model</td>
<td>84</td>
<td>183.32</td>
<td>2.18</td>
<td>0.97</td>
<td>0.06</td>
<td>0.07</td>
<td>255</td>
<td>377</td>
</tr>
</tbody>
</table>

**Notes:** $n = 219$. df, degree of freedom; $\chi^2$, $\chi^2$ test of fit model; $\chi^2/df$ = relative /normed $\chi^2$ (Hu and Bentler,1999); CFI, comparative fit index (Goffin, 1993); SRMR, standardized root mean square residual (Hu and Bentler, 1999); RMSEA, root mean square error of approximation (Steiger, 2007), 90% confidence interval; AIC, Akaike information criterion (Akaike, 1974); BIC, Bayesian information criterion (Schwarz, 1978).

All indicators load on a one factor model; $^b$organizational culture and Idiocentrism-Allocentrism load on one factor and cultural intelligence and engagement load on one factor; $^c$organizational culture and Idiocentrism-Allocentrism load on one factor and cultural intelligence and engagement load on their respective factors; $^d$cultural intelligence, idiocentrism-allocentrism, organizational culture and engagement.
The results show that our four-factor measurement model had the best fit to the data (see Anderson and Gerbing, 1988).

The results of the method effect for the model without common factor indicate a better fit to the data (CFI = 0.97; SRMR = 0.04; RMSEA = 0.06) than the model with common factor (CFI = 0.90; SRMR = 0.07; RMSEA = 0.06). In addition, the results of the method effect were not statistically significant ($\Delta \chi^2 (13) = 21.45, p > 0.001$), and the relationship between the variables was not affected in any way by the inclusion of this CFA. The percentage of the variance captured by the common factor was 19.40 percent. Therefore, CMV is unlikely to be an issue in this study (Chang et al., 2010; Podsakoff et al., 2003).

The measurement model was tested by examining the composite and individual item reliability, internal consistency and convergent and discriminant validity. Table II shows that the results for Cronbach’s $\alpha$ coefficient ranged from 0.76 to 0.86 and that composite reliability ranged from 0.84 to 0.91. Finally, no potential multicollinearity issues were found between the constructs.

Test of hypotheses

First, we analyzed the effect of the control variables (gender, tenure, position, work mobility, region, language and frequency of cross-cultural interaction) on engagement (see Kock, 2011). The analysis showed that the three covariates – region ($\beta = 0.26, t = 2.60, p < 0.01$), language ($\beta = 0.51, t = 3.10, p < 0.001$) and frequency of cross-cultural interaction ($\beta = 0.13, t = 1.98, p < 0.01$) – were significantly related to engagement.

Figure 2 shows the results of PLS-SEM for the direct and indirect proposed hypotheses after we included the control variables on engagement.

Direct effect. For H1, CQ was positively related to engagement ($\beta = 0.23, t = 2.40, p < 0.05$); therefore, H1 was supported.

Multiple moderation effects. To test the hypothesis of two moderation effects, we followed the procedures suggested by Chin et al. (2003) for PLS analysis and included in the model the computed standardized cross-product interaction constructs. Then, we performed simple graphical slope analyses to explore the nature of the moderation effects using high (1 SD above the mean) and low (1 SD below the mean) levels of the moderator.

The results for H2 showed that Idiocentrism-Allocentrism moderated the impact of CQ on engagement ($\beta = 0.36, t = 5.86, p < 0.05$), supporting H2. As depicted in Figure 3, the results of the slope analyses revealed that CQ was strongly associated with engagement for employees with an allocentric orientation (simple slope, $\beta = 0.37, t = 5.26, p < 0.05$) but was less strongly related to engagement for employees with an idiocentric orientation (simple slope, $\beta = 0.25, t = 2.36, p < 0.05$). These results provide support for H2 by indicating that CQ affects engagement more strongly when allocentric orientation is high.

In addition, the results of the comparison between the $R^2$ of the interaction model and the direct effect indicated that the $R^2$ value for engagement (main effect) was 0.19, and the inclusion of the interaction effects of allocentric orientation showed that $R^2$ increased to 0.24. In accordance with the categorization of $R^2$ effect sizes by Cohen (1988), the interaction effect has an effect size $f^2$ of 0.09, indicating a moderate effect.

The results for H3 revealed that of employees’ perceptions of the two dimensions of organizational culture (involvement and adaptability), only perceived adaptability moderated the impact of CQ on engagement ($\beta = 0.16, t = 2.98, p < 0.05$), while involvement was not found to be significant ($\beta = 0.09, t = 1.15, p > 0.05$). Therefore, only H3a was supported. The results of the slope analyses showed that CQ was strongly associated with engagement when adaptability was high (simple slope, $\beta = 0.24, t = 2.95, p < 0.05$), but was less strongly related to employee engagement when adaptability was low (simple slope, $\beta = 0.19, t = 2.22, p < 0.05$), as depicted in Figure 4.
Control variables

<table>
<thead>
<tr>
<th></th>
<th>M</th>
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<th>9</th>
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Organizational culture

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Notes: n = 219. Gender coded: 0 = male, 1 = female; Tenure = in years; work modality coded: 0 = Local, 1 = Expatriate; Region coded: 0 = North America, 1 = South America; Language coded: 0 = English, 1 = Spanish. α = Cronbach’s α; CR = composite reliability; AVE = average variance extracted (AVE); d = squared root of AVE. AVE test (Fornell and Larcker, 1981). *p < 0.05; **p < 0.01; ***p < 0.001
In addition, the results of the comparison of the differences in $R^2$ between the direct effect (main effect) of engagement and the interaction model of adaptability revealed an $R^2$ of 0.19 for the direct effect and an $R^2$ increase to 0.23 for the interaction effect. The $f^2$ of 0.05 for the interaction effect corresponds to a small interaction effect (Cohen, 1988).

We also assessed the change in $R^2$ values for the direct ($R^2 = 0.19$) and multiple moderation effect ($R^2 = 0.27$). The results revealed an increase in the effect size $f^2$ of 0.15, which represents a moderate effect (Chin et al., 2003).

Finally, the GoF result for the model was 0.40, which is regarded as large based on the average variance. Therefore, the results indicate an adequate level of validity for the PLS model.
Using a diverse sample, we established CQ as a salient construct for engagement. While studies have examined the effect of CQ on several psychological and performance outcomes such as decision making (Ang et al., 2007), cultural adjustment (Moon et al., 2012), task performance (Jyoti and Kour, 2015) and leadership effectiveness (Rockstuhl et al., 2011), little research has been conducted on its role as an antecedent of motivational outcomes. Our results support previous findings that CQ can facilitate employee motivation, enhancing their involvement and overall well-being (Chen, 2015; Kodwani, 2012).

Second, this study identifies CQ as an important resource in multinational contexts. To the best of our knowledge, this is the first study to examine these variables together within a multinational organization. Although numerous studies have investigated the role of CQ in multicultural interactions, most research has focused on short-term business travelers or international assignees, neglecting to examine the effect of this resource on employees who face cultural diversity without necessarily being relocated to another setting (Kim et al., 2008; Shaffer and Miller, 2008; Tay et al., 2008). Furthermore, although the benefits of engagement have been demonstrated across countries, multinational organizations still face a challenge to determine whether certain practices and factors meant to promote engagement are effective in the different parts of the world in which they operate (Kelliher et al., 2013). Our findings provide evidence that CQ may facilitate engagement for all employees of multinational organizations, which can promote employee coping, personal development and the achievement of work objectives. Since cultural diversity is an inescapable reality in most organizations, CQ appears to be a valuable resource across management situations and settings (Bücker et al., 2014; Rosenauer et al., 2015).

Furthermore, our results confirm that idiocentrism-allocentrism can be an important variable that affects how employees interpret their environment and the resources that they consider valuable (Rattrie, 2013; Robert and Wasti, 2002). Since harnessing the benefits of cultural diversity entails the acceptance of differences among employees and their cooperation...
to achieve work objectives, an allocentric orientation may cause employees to view more positively those abilities that facilitate such acceptance and cooperation, as demonstrated in previous findings (Chatman and Barsade, 1995). An idiocentric orientation also positively influenced the strength of the relationship between CQ and engagement, although to a lesser degree. As idiocentrics value individual achievement (Lam et al., 2002), CQ could also be considered a resource that facilitates the achievement of individual work goals.

Finally, our findings contribute to the literature by providing evidence that employees’ perceptions of organizational culture can enable the conditions in which resources are protected and shared among members, and in turn, can promote positive outcomes such as employee engagement (Chen et al., 2015; Hobfoll, 2012). In this regard, a highly adaptable culture can create environmental conditions that facilitate internal transactions of resources (e.g. CQ) to achieve the organization’s goals and success (Chen et al., 2015). Such an effect could be crucial for multinational organizations that operate under simultaneous and often conflicting pressures for global integration and local responsiveness (Doz et al., 2001). In such conditions, a high level of CQ could provide the tools necessary to effectively understand and respond to both international and local demands (Ang et al., 2007).

Contrary to expectations, the involvement dimension of organizational culture did not moderate the relationship between CQ and employee engagement. Previous research suggests that promoting teamwork and cooperation is not sufficient to successfully manage culturally diverse settings without also cultivating values that celebrate diversity, as cultural differences can be merely tolerated when there is little motivation to understand and adjust to such differences (McMillan-Capehart, 2005; Mutuku et al., 2013). In line with those findings, the perception of a high involvement culture may not be sufficient to guarantee that employees feel encouraged to develop greater CQ, and therefore, the effect of such a culture on employee engagement may be smaller.

Limitations and future directions
The data collected were obtained through self-report questionnaires, which might result in CMV bias. Although it was demonstrated that CMV was not a problem for the present study, future studies should consider collecting data from multiple sources to ensure higher validity (Podsakoff et al., 2003). In addition, although our study was conducted within the context of a MNC operating in multiple countries, most of our participants were located in North and South America. Future testing of these relationships in a more highly dispersed geographic sample is necessary to ensure greater generalizability of the relationships found. Moreover, our study measured employees’ individual perceptions of organizational culture without aggregating the results at the organizational level of analysis. Future studies that provide such measures could provide evidence of the multilevel relationships within these variables. Finally, the cross-sectional nature of our study may also be a limitation. In that sense, future longitudinal studies might support our findings and allow stronger claims about the causal effects of the examined model (Bakker et al., 2014).

Future studies should aim to identify additional resources and demands that may play a significant role in multicultural, international environments, as well as the processes that can lead to the development of job-related strain (e.g. burnout) and motivation (e.g. engagement) and their effect on organizational outcomes (Xanthopoulou et al., 2009). Previous studies have identified personality, multicultural experiences, team climate and work-family conflict as relevant constructs in cross-cultural research (e.g. Farndale et al., 2015; Lu et al., 2006; Tay et al., 2008). Additionally, the study of the crossover process (Westman, 2001) could also be an interesting avenue of research to examine how the transfer of emotions, experiences and resources can affect employee motivation within multinational organizations (Chen et al., 2015). Finally, the impact of other dimensions of cultural orientation, such as power distance, long-term orientation and uncertainty avoidance, should also be examined at the individual, organizational and national levels in the future (Kirkman et al., 2009; Rattrie, 2013).
Practical implications
To increase their workforce’s level of engagement, organizations should perform periodical evaluations to assess employees’ CQ and adopt the necessary measures, such as workshops, to promote its development (Ng, Van Dyne and Ang, 2009). At the system level, multinational companies should consider building a strong organizational culture across all management levels with special emphasis on adaptability and flexibility (Arifin et al., 2014; Chen et al., 2015). Values such as diversity, tolerance and cooperation should be highlighted to help employees develop and apply their full range of CQ repertoires. Such measures can be reinforced by establishing policies and practices that support cultural norms such as open communications and encouraging employees to learn from other cultures. Such policies should be part of a comprehensive intercultural training program that takes into consideration the cultural values of each local site, as a way to ease employees’ adjustment to cultural differences and increase their involvement in cultural interactions (Chen et al., 2015; Kelliher et al., 2013). Furthermore, personal characteristics such as an allocentric orientation should be considered when selecting future employees because such characteristics may affect their adjustment to culturally diverse organizations.

Finally, interventions might be conducted to increase employee engagement directly (Schaufeli and Salanova, 2010). Such efforts should be accompanied by periodic surveys to assess their success and effects on the workforce.

Conclusion
Our results contribute to the identification of relevant resources that affect employee engagement within multinational work contexts. Moreover, our findings elucidate how companies operating in multicultural settings can help employees manage diverse work settings and increase employee engagement through the development of CQ, which is particularly important considering the rapid expansion of companies operating across international borders and the cultural diversity that characterizes these companies’ workforces.

References


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Further reading


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