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EMOTIONAL INTELLIGENCE AND CULTURAL INTELLIGENCE IN TOP MANAGEMENT OF INTERNATIONAL SMES

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Abstract

The psychological characteristics of international firms' decision-makers are of major importance in an increasingly borderless business world. Cultural intelligence (CQ) and emotional intelligence (EI) endow individuals with critical abilities to interact in multicultural environments. Given the scarcity of empirical studies, this research studies the relationship between CQ and EI and their dimensions respectively. This study focuses on the decision-makers of international micro, small and medium-sized enterprises. The sample is composed of 307 international top managers. Constructs convergent and discriminant validities were verified and the relationship between them was assessed. Despite difference, the two intelligences are significantly related. In relation to their dimensions, significant relationships emerged as well significant emotional predictors of cultural intelligence. According to the results, the two intelligences emerged as important related capabilities within international top managers. We attested that in international business contexts, cultural and emotional intelligences are important and related capabilities.

Keywords: Emotional Intelligence, Cultural Intelligence, Cross-Cultural Management, Internationalization

1. Introduction

This study focuses on the psychological characteristics of international micro, small and medium-sized enterprises (SMEs) decision-makers: specifically on Cultural Intelligence (CQ) and Emotional Intelligence (EI). In the context of international management and internationalization processes of SMEs, understanding and studying top managers'

characteristics is a domain with high scientific relevance (e.g. Adomako *et al.* 2019; Anwar *et al.* 2018; Hsu *et al.* 2013; Kuivalainen *et al.* 2012; Prange and Pinho, 2017). Top managers have an important role in the context of business internationalization (Hsu *et al.* 2013; Lin and Liu, 2012) and so do their psychological characteristics (Adomako *et al.* 2019; Anwar *et al.* 2018). The CQ and EI are taken as important capabilities of top managers in international business environment (Alon and Higgins, 2005; Jyoti and Kour, 2017). Given the importance of CQ and EI within cross-cultural contexts (Moon, 2010), this study examines the relationship between the two constructs. Literature on the topic with an empirically point of view remains scarce and research on the subject highly pertinent (Crowne, 2013a).

In this research, we took international SMEs decision-makers' EI as a significant capability to interact in intercultural settings and as an important one to study in the organizational context (e.g. Leonidou *et al.* 2019). Although, it is observable a substantial lack of research about the role of EI in the international business context (Lin *et al.* 2012). Because general intelligence tends to explain only a small portion of what constitutes success, EI has the potential to fill in much of the gap (Mayer and Salovey, 1997). From a leadership point of view, leaders with highest levels of EI will tend to be more effective in carrying out their duties. This is so due to their understanding of their own, and that of others emotional abilities and due to their ability to regulate and use emotions (Wong and Law, 2002). It is not a form of general knowledge about the individual and others, but rather a form of intelligence that promotes evaluation, expression, regulation and emotional use (Salovey and Mayer, 1990). EI is the "… capacity to reason about emotions, and of emotions to enhance thinking" (Mayer *et al.* 2004, p. 197), allowing problem solving based on emotional information (Mayer *et al.* 1999). EI harmonizes reason with emotion, i.e. it deals with emotion intelligently (Mayer and Salovey, 1997). The present research takes EI as a multidimensional construct with four dimensions: self-emotions appraisal (SEA); others-emotions appraisal (OEA); use of emotion (UOE); regulation of emotion (ROE) (Ingram *et al.* 2019; Wong and Law, 2002).

The prominence of firms' international missions and the important roles of the entrepreneur or manager and their characteristics in the internationalization processes of SMEs (Ismail and Kuivalainen, 2015; Navarro-Garcia, 2016) and the current presence of the intercultural sphere in everyday life and particularly in the working context require people to deal with the most varied emerging aspects of the cultural diversity in which they operate (Earley and Mosakowski, 2004; Van Dyne *et al.* 2012). In these contexts, the international managers cultural competencies are of utmost importance (Vaccarini *et al.* 2019). Thus, CQ emerges as a key capability and an important enabler for those who interact in their day-to-day life with intercultural business environments (Imai and Gelfand, 2010). Important for studies in management (Van Dyne *et al.* 2012), CQ is a recent field of research that still requires a need for better understanding and demands consequent investigation (Crowne, 2013b). Following Earley and Ang (2003, p. 59), "cultural intelligence refers to a person's capability to adapt effectively to new cultural contexts". Thus, CQ assists individuals in diverse cultural settings and not only in a specific culture: "…CQ is culture free …" (Ang *et al.* 2007, p. 339). Grounded on Sternberg's (1986) conceptual framework for intelligence, Earley and Ang (2003) developed a multidimensional concept of CQ (Van Dyne *et al.* 2012). We took CQ as a multidimensional construct that integrates the Metacognitive (MC), Cognitive (COG), Motivational (MOT) and the Behavioral (BEH) dimensions(Ang *et al.* 2007; Jyoti and Kour, 2017).

This study contributes to the international business and psychological fields, taking the psychological characteristics of SMEs international firms' decision-makers, namely, EI and CQ, as critical abilities to interact in multicultural environments. Literature shows the scarcity of empirical studies concerning the relationship between CQ and EI and their dimensions. Therefore, we stressed the importance of these intelligences within international environments and studied the relationship between them and their dimensions. As main findings we attested the constructs convergent and discriminant validities and their significant relationship. International top managers' EI and CQ emerged as significantly related intelligences. The results show that both the overall constructs and their dimensions are significantly related as well significant emotional predictors of cultural intelligence. Regarding the structure of this research, the next section reviews the relationship and complementarity between the two

intelligences. In the section three, the hypotheses are formulated. Subsequently, the section four addresses the followed methodology. Section five contains the results of the research and in section six, we performed the discussion of the results. Finally, in section seven, we present the conclusion of the research and in section eight, the limitations and future research avenues.

2. Relationship between emotional and cultural intelligences

The scarcity of empirical studies focusing on the relationship between EI and CQ should be pointed out (Karroubi *et al.* 2014; Lin *et al.* 2012) as well as the need for further research between them (Crowne, 2013a). In fact, the research about the predictive character of EI and the understanding of how it relates to other intelligences, e.g. CQ, is of recognized scientific interest (Cote and Miners, 2006; Crowne, 2013a, 2009; Mayer *et al.* 2004; Moon, 2010). In this line, Moon (2010) warns that it is difficult to assess a causal relationship between EI and CQ, recognizing, however, the relationship between them and the scarcity of studies on this subject.

The conjugation of EI and CQ suggests from the outset an improvement in the intercultural actions of individuals. For instance, because the expression of emotions is not homogeneous across cultures, EI and CQ can mutually contribute to an individual's ability to identify, understand and regulate the emotions of others (Moon, 2010). CQ as an individual capability complements other forms of intelligence such as EI (Van Dyne *et al.* 2012).Therefore, we took the simultaneous consideration of EI and CQ as of recognized interest in the action scope of firms' multicultural contexts. As Ang and Van Dyne (2008) pointed out, individuals, when interacting with cultural diversity and their social differences, neither EI nor cognitive intelligence (IQ) seem sufficient for an effective intercultural adjustment. Therefore, the synergetic effect with CQ is decisive. CQ stimulates the international manager archetype (Imai and Gelfand, 2010) and EI capabilities can also play an important role within managers' intercultural contact (Moon, 2010). EI appears to be an important capability of individuals in multicultural contact inherent to international business (Lillis and Tian, 2009). The two intelligences under consideration, although distinct, are related to each other (Crowne, 2013a; Moon, 2010). Therefore, the complicity between them is verifiable in the literature insofar, as proposed for example by Lin *et al.* (2012, p. 542): "… people with a lower CQ would need a higher EI to adjust their behaviors appropriately in a different culture". In this vein, Lin *et al.* (2012) note that individuals in contact with intercultural environments, by having higher levels of EI, express better their emotions and express themselves verbally and nonverbally in more accurate ways, better understanding the minds of others and what they culturally intend to communicate, and regulating their emotions to avoid misunderstandings. Their study attests the positive effect of CQ on intercultural adaptation and the positive moderation of EI on the relationship between CQ and intercultural adaptation. Their results show that international students with high levels of EI adapt better to cross-cultural environments, because their EI allows them to quickly perceive cultural differences. When studying the relationship between EI and CQ, it should be emphasized that emotional and motivational factors are present in CQ (Earley and Mosakowski, 2004), thus indicating "…that EQ leads to CQ" (Jyoti and Kour, 2017, p. 770).

Despite the potential relationship between CQ and EI, Gunkel *et al.* (2014) account on aspects varying across cultures, such as the ability of emotional communication, perception, regulation and emotional use. Earley and Mosakowski (2004, p. 139) stated that "cultural intelligence is related to emotional intelligence, but it picks up where emotional intelligence leaves off". In fact, an individual may exhibit high levels of EI within their own culture but not necessarily convert that ability into a successful adaptation to different cultural contexts (Moon, 2010). This approach emphasizes the fact that the emotional capability underlying EI is not automatically reflected in different cultural contexts (Ang and Van Dyne, 2008). Culture influences the realm of emotions. Gunkel *et al.* (2014) show that some cultural dimensions of different countries affect, as antecedents, the levels of individuals' EI. Therefore, in the study of EI within intercultural interactions emerges the importance of considering CQ. The national culture of different countries influences EI and in general the mind mechanism (Gunkel *et al.* 2016). However, it is important to bear in mind in the spectrum of emotions that, despite the

existence of differences, some similarities in emotional functioning are found across different cultures (Matthews *et al.* 2012). As recognized by the literature, emotions have a character of universality as well as a character of cultural specificity (Shao *et al.* 2015). Thus, following Shao *et al.* (2015), the emotion perception abilities have an essential and much more universal nature than the abilities to understand and regulate emotions. Crowne (2009), addressing the distinction between EI and CQ, mentions that EI may not be reflected in diverse cultural settings. Concerning CQ, Crowne (2013a) refers that a culturally intelligent individual does not necessarily possess a high level of EI. Being emotionally intelligent does not stem from being culturally intelligent and vice versa. On the other hand, due to the fact that in the context of intercultural contacts, some different issues or problems may arise, individuals with high levels of EI seem to be well prepared to cope with those contexts and to evaluate, regulate and use emotions within their actions (Karroubi *et al.* 2014).

In spite of their differences, we assumed EI and CQ as important constructs related to each other in the international top managers' business context. This research is based on the principle of a complementary relationship between the EI and the CQ that, besides necessary, is also beneficial to international top managers operating in international business contexts. Although the literature refers to differences and similarities between EI and CQ, an important potential relationship between the two intelligences and their complementarity in intercultural contexts is recognized. That relationship highlights the important role that both the intelligences play in intercultural settings.

According to Jyoti and Kour (2017), EI positively affects CQ because the former, emotionally facilitates the understanding of self and others and, consequently, their interaction in multicultural contexts. Higher-level EI individuals have intrinsically a better ability to deal with self-emotions and those of others; to regulate and use emotions to improve their actions in unfamiliar intercultural environments; to reduce uncertainty, culture shock and stress typical of operating in international settings (Lin *et al.* 2012). Because social, psychological, and cultural challenges are vast in multicultural contacts, the ability to understand and manage emotions in these contexts is critical to effective cultural adjustment (Lin *et al.* 2012). It is therefore legitimate to assume that EI predicts a better cultural adjustment by assisting the appropriate skill that regulates and expresses emotions and behaviors and evaluates self-emotions and those of others in different cultural contexts (Lin *et al.* 2012). Karroubi *et al.* (2014) assess a significant relationship between CQ and EI where the former positively impacts the latter. According to Karroubi *et al.* (2014), the individual who best knows the context in which he operates is better placed to communicate and control it, given that the environments are places of people with people's emotions. In intercultural contexts, emotional understanding and expression ability requires, strictly speaking, not only the indexed capability to EI but also the ability for cultural adjusted understanding and expression, reflecting the intersection between the two constructs (Crowne, 2009). In fact, when thinking culturally, one also thinks about the emotional spectrum of a given culture, as (Crowne, 2009, p. 157) refers "many cross-cultural interactions involve emotions, and many emotional situations involve understanding the cultural context". Alon and Higgins (2005) emphasize CQ as a stimulating capability of EI. Consequently, and despite the universal character of some emotions, in general they are not equally reflected in different cultures. In this sense, Sternberg (1997, p. 1034), with regard to EI, states that "the abilities would seem to be universal, although, again, their behavioral manifestations might differ somewhat from one environmental context to another". Therefore, CQ acts as an instrument of transference of the individual emotional capabilities in a given culture to the culture of contact (Alon and Higgins, 2005). It manifests the complementarity between the two intelligences, because, although EI provides the individuals with the ability to deal with emotions, this ability is dependent on the cultural context in which they are found. According to Ang *et al.* (2007) an individual with high levels of EI in one culture may not be able to translate these levels into another. As Salovey and Grewal (2005) point out, the skills of the emotionally intelligent individual take place in their social context and, in order to apply them to new environments, they must be aware of what constitutes an accepted behavior in the new context.

When in contact with different cultures, for instance, the emotional expression ability adjusted to context is not exclusive to emotionally intelligent individuals but also to culturally

intelligent ones (Crowne, 2009). Due to the ability to be emotionally intelligent varies with different cultures, CQ is a fundamental ability for those who interact with different cultural settings (Alon and Higgins, 2005). Because CQ allows the understanding of emotions according to the rules of different cultures and promotes a more appropriate emotional expression and behavior, then it is more likely that the relationship between EI and CQ be one of complementarity (Sharma and Hussain, 2017). For instance, Darvishmotevali *et al.* (2018) demonstrate this complementarity by verifying that the CQ moderate the relationship between EI and creative performance. Lin *et al.* (2012) place CQ and EI as capabilities that stimulate work adjustment in multicultural environments. Lin *et al.* (2012, p. 544) call intelligent behavior outside the academic world "'real world' intelligence" which incorporates EI and CQ. According to Gabel *et al.* (2005), EI plays a relevant role in managers intercultural adjustment for international missions and an important indirect role in their international success. "Thus EI helps to diminish the cultural differences between the host and home cultures of the global manager, and thereby increases the possibilities for better cross-cultural adjustment" (Gabel *et al.* 2005, p. 390). Earley and Mosakowski (2004) highlight the fact that an emotional intelligent manager working in intercultural environments will have the ability to manage delicate situations by creating, for example, empathy and managing moods. However, if he lacks CQ skills, he will not adequately appreciate whether certain situations are generated by cultural legacy or not, therefore increasing the difficulties to properly address them.

Given the acknowledged importance of CQ in the cultural diversity of international environments (Earley and Ang, 2003) in this research, we also wanted to show the determinant role of EI in these contexts. Therefore, the value of EI in CQ is emphasized.

3. Theoretical approach and hypotheses formulation

The conceptual organic of Moon (2010) will be followed together with the conceptual view of EI components of intrapersonal and interpersonal respectively recognized in Ingram *et al.* (2019). We used self-emotions appraisal (SEA) and regulation of emotion (ROE) dimensions indexed to the intrapersonal EI (self- awareness and self-regulation) and, others-emotions appraisal (OEA) and use of emotion (UOE) to interpersonal EI (social-awareness and relationship management) (Ingram *et al.* 2019).

3.1. Hypothesis 1

Due to the scarcity of studies on the relationship between EI and CQ (Crowne, 2013a), exploring the potential relationship between the two intelligences is an empirically valuable link in the present research. We expect that EI and CQ, as intelligences, are related. For instance, the literature observes that emotional and motivational factors are present in CQ (Earley and Mosakowski, 2004). As highlighted by Jyoti and Kour (2017, p. 770) "EQ leads to CQ". According to these authors, EI positively affects CQ. On the other hand, given the influence of culture on emotions, as Gunkel *et al.* (2014) analyzed, some cultural dimensions of different countries affect individual's EI levels. Alon and Higgins (2005) emphasize the stimulating value of CQ over EI. Accordin to Alon and Higgins (2005, p. 506), "in order to be EQ effective, one must also be CQ effective". Therefore, a relationship between EI and CQ is likely to exist: as Crowne (2013a) states, EI and CQ, despite being distinct, are related.

H₁: EI and CQ are positively correlated.

3.2. Hypothesis 2

Following Moon (2010), EI capabilities associated with the contact with third parties (interpersonal), more than those specifically associated with the individual (intrapersonal), better explains CQ. Indeed, the important role of recognizing the emotions of others in intercultural adjustment is recognized, given the perceived advantages for communication and the interpersonal relationships with different cultures (Yoo *et al.* 2006). For instance, the EI

capabilities of identifying, understanding and regulating emotions of others hold an important role for CQ's behavioral dimension (Moon, 2010). Concerning individuals with higher levels regarding the use of emotions to facilitate performance, they are more capable of channeling their emotions to improve performance and other positive outcomes, both when dealing with others and themselves (Law *et al.* 2008, 2004). The use of emotions to leverage positive emotional scenarios that facilitate problem solving is an important capability of EI (Salovey and Mayer, 1990). Consequently, individuals with higher levels in this dimension "would be able to encourage him / herself to do better continuously and to direct his / her emotions in positive and productive directions" (Law *et al.* 2008, p. 53). Therefore, we formulate hypothesis two as the following:

H_2: Considering the four EI dimensions; OEA and UOE together have a greater value predicting CQ than the set SEA and ROE.

3.3. Hypothesis 3

To deepen the analysis of the association between EI and CQ, the potential relationship between dimensions of the constructs should be studied.

SEA dimension reflects an individual's ability to recognize, understand and express self-emotions (Salovey and Mayer, 1990). Following Moon (2010), the self-awareness competency of EI should be related to the MC dimension of CQ. We accept this reasoning. According to Salovey and Mayer (1990), SEA integrates the ability to assess and learn about emotions, to introspect and to form propositions coherently. An accurate emotional assessment and expression requires the processing of emotional information and helps promoting social interaction (Salovey and Mayer, 1990). MC presupposes the control of cognition, the cultural awareness capable of plotting cognitive strategies, creating an awareness about cultural interactions, before and during they develop and making it possible to know when and how to apply knowledge (Ang *et al.* 2007; Rockstuhl *et al.* 2011). This dimension reflects the awareness and the ability for reflection and adjustment of cultural knowledge in diverse multicultural interactions (Ang and Van Dyne, 2008). Thereby, those who better appraise, understand and express own emotions, are better prepared, in diverse cultural settings, to learn cultural knowledge and to recognize the better way to respond to various stimuli created by the multiplicity of cultural environments. This is so because they are more aware of the self (Moon, 2010). Thus, SEA is expected to be related to MC. Therefore, we formulate hypothesis three as the following:

H_3: SEA is positively related to MC.

3.4. Hypothesis 4

Following Moon´s (2010) analysis, the self-management dimension, taken by ROE in this study, positively relates to MOT and BEH. According to ROE, individuals control their emotions and maintain balance (Law *et al.* 2004); optimize their emotional state by controlling unpleasant emotional states and sustaining pleasant ones (Salovey and Mayer, 1990); manage and create favorable situations in social interaction (Law *et al.* 2004); control their temper and are better able to manage happy or unhappy situations (Law *et al.* 2008). Yoo *et al.* (2006) also observe the positive role that emotional regulation plays in intercultural adjustment, e.g., in reducing the shock with new cultural environments. In this way, individuals with a higher ROE seem to be more capable to proceed with MOT and BEH of CQ. According to MOT, this happens because individuals are more capable of generating attention and energy in diverse contexts, in order to build multicultural learning (Ang *et al.* 2007; Rockstuhl *et al.* 2011); they are more likely to overcome the inherent difficulties and to adapt effectively to different cultural contexts (Lin *et al.* 2012); they are more available and effective in establishing intercultural contacts and enjoying a special taste in their promotion and adaptation (Imai and Gelfand, 2010). This dimension is the basis of the individual's self-confidence when interacting in multicultural environments (Groves

et al. 2015). The BEH dimension relates to individuals' abilities to behavioral flexibility and facilitation in different multicultural circumstances and usage of appropriate verbal and nonverbal communication, which contributes to a greater adjustment to cultural diversity (Ang *et al.* 2007; Rockstuhl *et al.* 2011). Therefore, individuals who better regulate their emotions are more capable to adjust their behaviors in the different cultural situations they face (Moon, 2010). Therefore, individuals who have higher levels of ROE inspire a greater ability to overcome the difficulties of different cultural contexts and are more available for the promotion, establishment and adaptation to diverse intercultural interactions.

H₄: ROE is positively related to MOT and BEH.

3.5. Hypothesis 5

The ability to read and understand others' emotions and needs, OEA, is potentially related to MC, MOT and BEH of CQ (Moon, 2010). This is because, following Moon (2010), this emotional capability can promote a better reading of others' emotions and promote greater flexibility in dealing with verbal and nonverbal behaviors in different cultural contexts. This ability of EI relates to the dimensions of CQ once it reflects, the individual's capability for perception and understanding of the emotions of others; its capability to create empathy, a fundamental side of the emotionally intelligent individual (Mayer *et al.* 1999); its ability to promote healthier, more satisfying and fruitful relationships; and its capacity for fostering trust and the possibility of being better accepted (Salovey and Mayer, 1990). Thus, OEA should relate positively with the MC capability, which, according to Van Dyne *et al.* (2012), is responsible for cultural and social interactions awareness; the awareness of a culture's influence in self and others' minds and behaviors; for intercultural contact preparation; and according to Groves *et al.* (2015), for critical thinking in the various multicultural interactions. OEA should also relate positively with the MOT capability, which, following Imai and Gelfand (2010), is responsible for fostering intercultural contacts and appreciate them taking adaptive behaviors respectively, among other aspects referred above. The BEH capability is responsible for flexibility in diverse multicultural settings and for the appropriate use of verbal and nonverbal communication (Ang *et al.* 2007). Imai and Gelfand (2010) and Lin *et al.* (2012) refer the due importance of words, tones, accents, gestures, facial expressions and body language for appropriate dynamics in multicultural settings. So, OEA should play an important role concerning cultural flexibility in behaviors with others (Moon, 2010). Therefore, we formulate hypothesis five as the following:

H₅: OEA is positively related to MC, MOT and BEH.

3.6. Hypothesis 6

According to the use of emotion to facilitate performance dimension, UOE, emotionally intelligent individuals use emotions to leverage positive emotional scenarios that facilitate problem solving; promote the redirection of attention to issues with greater relevance and to redirect emotions, imagine situations, enjoy positive moods and attitudes to motivate personal problem-solving and task performance (Salovey and Mayer, 1990). UOE allows individuals to direct themselves to productive actions and to consistently do better (Law *et al.* 2008). Following Moon (2010), the emotional capability responsible for helping, inspiring and influencing others; for dealing with contextual challenges and developing initiatives; for fostering collaborations and managing conflicts, and for having an appropriate communication is related to the four dimensions of CQ. Thus, individuals that meet these facets, according to Moon (2010), are better prepared to adapt to new contexts of cultural diversity given their thinking skills, knowledge, motivation for intercultural contact and communication skills. Therefore, we formulate hypothesis six as the following:

H₆: UOE is positively related to MC, COG, MOT and BEH.

4. Methodology
4.1. Sample and data screening

The universe of this analysis comprises the decision-makers with direct responsibility of international activities in Portuguese international SMEs. In data collection and sampling, we requested the position of each respondent as an admissibility criterion. The sample is composed by founders, owners, chief executive officers (CEOs), managers of international activities, international market managers or commercial managers. This procedure is common in studies involving SMEs internationalization where the most knowledgeable element concerning internationalization is questioned (e.g. Kontinen and Ojala, 2012). We follow the European Union's definition of SME, as do to other European studies (e.g. Schueffel *et al.* 2014; Zucchella *et al.* 2007).

In previous data examination, after the exclusion of respondents with incomplete information, we obtained a total of 321 complete survey responses. We removed from our database four responses that did not comply with the SMEs' criteria. Concerning unengaged responses, standard deviation was calculated in Likert scales for each respondent. Thus, to avoid disturbing the data, two respondents were eliminated from the analysis due to their reported variability very close to zero (Nadhim *et al.* 2018). In the line with other studies, a cutoff of less than 0.3 was applied (e.g. Makkar and Singh, 2018). Concluding, after data purification, 307 responses of international SMEs Portuguese decision-makers met the necessary criteria and were taken into consideration for further analysis. The data was screened, and concerning missing data, we identified one case relating to the control variable "year of birth" of the respondent and one case concerning "respondents' international experience (RIE)". Because this is a minimal missing data level, we can use one of the approaches for remedying the situation without biasing our results (Hair *et al.* 2014). We adopted a group mean substitution. To the respective position group of the respondent, the mean of the year of birth of the individuals and that of the RIE were imputed in order to calculate the age and the international experience of the respondents of that missing cases (Hair *et al.* 2014). Concerning outliers, no questions were assumed in this topic, except in one observation regarding RIE where the value of the respondent seemed to be a typing error. We applied the same token: the missing value was replaced by the mean of the position group occupied by the individual. Regarding the assumption of normality, when samples are of 200 cases or more, nonnormality issues tend to be diminished (Hair *et al.* 2014).

Table 1. Sample analysis (307 international top managers)

Position/Gender	Number	Percentage	Age (average)	International experience (average)
Founders and owners	144	46.9%	51	1.17
Male	109	35.5%	51	1.24
Female	35	11.4%	50	0.97
CEOs	67	21.8%	51	0.97
Male	52	16.9%	52	1.02
Female	15	4.9%	45	0.80
Commercial managers	42	13.7%	43	1.71
Male	22	7.2%	44	2.27
Female	20	6.5%	41	1.10
Managers of international activities	40	13.0%	43	1.40
Male	26	8.4%	45	1.38
Female	14	4.6%	38	1.43
International market managers	14	4.6%	40	0.86
Male	10	3.3%	40	0.70
Female	4	1.3%	39	1.25
Total	307	100%	48	1.22

Source: Authors' own preparation

We analyzed our sample and in relation to gender, of the 307 participants, 71.3% were male (average age 50 years) and 28.7% female (average age 45 years). In relation to the respondents' international experience, the average was 1.22 countries where they have lived. Further analysis is present in Table 1.

4.2. Data collection and procedure

The survey is the data collection instrument used in this research. As a methodological procedure, it was pretested. A panel of 10 individuals representing managers working in internationalized enterprises was selected to verify the conformity of the survey, the meaning of each item, the filling instructions, the response format and the answering time, amongst others. The feedback did not reveal any particular problems and minor changes were made namely in the clarification of few items. We used a methodology abundantly used by other studies based on an online survey, sent by e-mail to the referred decision-makers responsible for the international activities of Portuguese SMEs. Survey completion made use of the forced answer method, with the exception of the year of birth. Data collection took place from the 2nd to 30th of April 2019. Throughout this period, the survey was sent in different phases to recipients, including reminders to the non-respondents.

Concerning the variables under consideration, this study uses previously validated scales with minor adaptations in a few items. We have taken special precautions on designing the survey, especially since all scales were in the English language but the sample is constituted of native Portuguese speakers. In relation to EI, we used the translation of the selected scale by Rodrigues *et al.* (2011). The authors adapted and validated the Wong and Law Emotional Intelligence Scale (WLEIS) to the Portuguese context, attesting its psychometric properties based on a working context sample. This study adopts the Portuguese translation (WLEIS-P) by Rodrigues *et al.* (2011). In the case of CQ, we used the scale translation to Portuguese by Sousa *et al.* (2015). The selected scale is the Cultural Intelligence Scale (CQS) of Ang *et al.* (2007) which Sousa *et al.* (2015) adapted to the Portuguese population, attesting its validity, reliability and conceptual multidimensionality. Regarding social desirability (SD), the used scale was translated from English to Portuguese. To the survey's validity, reliability and linguistic equivalence, we used a translation/back-translation process, common in other studies (e.g. Gunkel *et al.* 2014; Law *et al.* 2004; Lin *et al.* 2012), namely the Behling and Law (2000) translation/back-translation procedure. Two bilingual scholars (Portuguese and English respectively), both with PhDs in the social sciences, applied the procedure – translation into Portuguese and back-translation into English. Subsequently, we compared the versions (Behling and Law, 2000) and although negligible differences were detected, these required a new iteration. The procedure was repeated to address these inconsistencies despite the smaller differences among versions that did not change the substance. This was made to assure greater translation consistency. Finally, minor adjustments were made in a limited number of items. This last adjustment step, commonly used in the literature, follows the final stage of the translation/back-translation process proposed by Behling and Law (2000).

In this research, because the data source is based on a single respondent self-report in each firm, and in order to obtain the higher levels of consistency in the results, we took measures to control the common method bias (CMB), given its weight as a source of measurement error (Podsakoff *et al.* 2003). Given the nature of this research, getting information from different sources does not appear to be a reasonable method, as Podsakoff *et al.* (2003) contemplate in their approach. Therefore, given their recommendations on CMB, the potential problem of the respondent's social desirability tendency and the existence of ambiguous and complex items were taken into consideration. Accordingly, during the translation process, we improved some items, in slight detail, for better comprehension and we carried out a pretest to make additional improvements on some items and address other issues related to the survey's structure and content. In line with the guidelines of Podsakoff *et al.* (2003), the anonymity and confidentiality of the responses was assured, we appealed to respondents' honesty and emphasized the non-existence of right or wrong answers. Ensuring the

confidentiality of the responses when using surveys is a prerogative that is intended to be clear to all participants, as well as the voluntary nature of the study (e.g. Gabel *et al*. 2005).

Self-report measures can give rise to socially desirable responses (Carvalho *et al*. 2016; Santos *et al*. 2018). Concerning control variables, and considering the potential response bias as a result of the use of self-report measures, we used the SD variable to mitigate these effects (Crowne, 2013b). According to Mayer *et al*. (1999), EI increases with age. Therefore, respondent's age is considered in this study as well as gender, that may have an effect on, e.g., emotional intelligence (e.g. Gunkel *et al*. 2014). Manager's international experience is also an important variable that should be considered once it is a source of knowledge (Nielsen, 2010) and due to its potential to influence CQ (Moon, 2010).

We treated the collected data with AMOS and the IBM SPSS Statistics of the Statistical Package for Social Science program version 25.

4.3. Variables and measurement
4.3.1. Emotional intelligence

There is no agreement on the conceptualization, and inherently a lack of consistency in the measurement, of EI (Law *et al*. 2008). EI can be assessed through performance measures or self-report measures (Carvalho *et al*. 2016; Law *et al*. 2008; Rodrigues *et al*. 2011). EI self-report measures, besides being easier to apply, have shown a better quality in their psychometric properties (Carvalho *et al*. 2016) and, despite risks of social desirability responses and other personal biases, these have been found to be reliable (Law *et al*. 2008). We measure EI using a self-report scale composed of sixteen items that was developed by Wong and Law (2002), following Salovey and Mayer (1990) and Mayer and Salovey (1997). This scale, repeatedly used to measure EI as an ability (Carvalho *et al*. 2016; Cho *et al*. 2015), is known as WLEIS and is a self-report psychometric scale that evaluates the four dimensions of EI: Self-emotions appraisal; Others-emotions appraisal; Use of emotion; and Regulation of emotion (Law *et al*. 2004). With the application of this instrument, a significant latent construct emerges: EI (Law *et al*. 2004). Indeed, "WLEIS presents consistency to capture all EI dimensions" (Carvalho *et al*. 2016, p. 158) and, within the self-report measures "… the WLEIS it is shorter and has a four-factor structure that seems to be more reliable to represent the Salovey and Mayer (1990) EI framework" (Carvalho *et al*. 2016, p. 153). Unlike many other scales, WLEIS was designed to be simpler and more appropriate in investigations within the framework of management, leadership and, generally, in the organizational context (Wong and Law, 2002). The widely use of the scale in the literature is manifest in studies of several domains. This which also accounts for its importance and the significance of the ability-based model (e.g. Crowne, 2013a; Darvishmotevali *et al*. 2018; Devonish and Greenidge, 2010; Gunkel *et al*. 2016; Law *et al*. 2008). A higher score on this scale reflects greater levels of EI (Devonish and Greenidge, 2010; Santos *et al*. 2018).

4.3.2. Cultural intelligence

To measure CQ, we used a scale with twenty items that was developed by Ang *et al*. (2007), following Earley and Ang's (2003) definition of CQ. This scale is known as CQS and it is a self-report psychometric four-dimensional scale, evaluating the four intercultural capabilities of CQ: Metacognitive, Cognitive, Motivational and Behavioral, which the authors verified with this instrument and that supports the global construct of CQ (Ang *et al*. 2007). The Ang *et al*. (2007) CQ scale is widely used in diverse studies (e.g. Caputo *et al*. 2018; Groves *et al*. 2015; Imai and Gelfand, 2010; Jyoti and Kour, 2017; Rockstuhl *et al*. 2011). A high score on this scale reflects an individual's ability to adjust and behave appropriately and effectively in new cultures (Lin *et al*. 2012).

4.3.3. Social desirability

In this research, Reynolds (1982) Form C, a shorter version of Marlowe Crowne Social Desirability Scale, is used to measure levels of social desirability (SD). This scale demonstrates

its applicability in the domain of management and organizational reality given the self-report character of the measures used (e.g. Serenko and Bontis, 2016; Triki *et al.* 2017; Uy *et al.* 2015). This is a scale of thirteen items with a true / false response format (Triki *et al.* 2017). However, other studies use a Likert scale response format (e.g. Uy *et al.* 2015). In the present study, a 5-point Likert scale response format ranging from 1 = strongly disagree to 5 = strongly agree is used and the false oriented items were subject to a reverse-scored.

We also used a 5-point Likert scale response format to EI and CQ scales, much like existing studies (e.g. Caputo *et al.* 2018; Darvishmotevali *et al.* 2018; Gunkel *et al.* 2016; Jyoti and Kour, 2017) where: 1 = strongly disagree; 2 = disagree, 3 = neither agree nor disagree; 4 = agree; 5 = strongly agree.

4.3.4. Age

Age is a relevant variable in the study of intelligences. Law *et al.* (2004) refer studies that reflect a positive correlation between EI and the individual's age. So, we considered the survey item: please indicate your year of birth.

4.3.5. Gender

When studying individuals' psychological characteristics, gender is a control variable widely used (e.g. Ang *et al.* 2007; Crowne, 2013b; Gunkel *et al.* 2016; Jyoti and Kour, 2017; Law *et al.* 2008). Thus, the item in the survey is: please indicate your gender [male, female]. Gender (G) was coded with: 1 = male and 2 = female (e.g. Law *et al.* 2008).

4.3.6. Respondents' international experience

Manager's international experience is an important source of knowledge and abilities to deal with the international environment and with international markets entry (Nielsen, 2010). International experience is a potentially influential in CQ (Moon, 2010). RIE was measured through the number of countries where the respondents had lived, following Rockstuhl *et al.* (2011). Although, it should be noted that more accurate measures of international experience exist (Nielsen, 2010). So, the survey item is: besides Portugal, please indicate the number of countries where you have lived.

4.3.7. Position

The position of each respondent was requested. The participants had to select among founders, owners, CEOs, managers of international activities, international market managers or commercial managers. Only respondents that perform one of the referred positions participated in the research.

5. Results
5.1. Factor analysis
5.1.1. Exploratory factor analysis

An exploratory factor analysis (EFA) was conducted to EI, CQ and SD. After performing a sequence of different EFA methods, to the EI sixteen items, CQ twenty items and SD thirteen items respectively, the final factorial structure of each construct was performed by an EFA using the principal components extraction method with promax rotation. According to the observed values (Table 2) of Kaiser-Meyer-Olkin (KMO) and of the Bartlett's test of sphericity to all constructs, pursuing the factor analysis is highly recommended (Field, 2009). The number of factors was given by the Kaiser's criterion and by the scree plot (Field, 2009). Concerning EI, the four factors structure emerged with a total variance explained of 61.47 percent. The results obtained attest to the foundations and theoretical principles of the WLEIS and to CQS, exhibiting internal consistency in the total scales and factors respectively (Table 2). However, the item number one in MOT dimension exhibited cross-loadings. After trying different extraction methods with several rotations, the persistence of this scenario led to item elimination (Hair *et*

al. 2014). After this elimination, the analysis was run again (Hair *et al.* 2014) with the nineteen items with a total variance explained of 59.63 percent by the four factors. Concerning SD, no unidimensional structure emerged, an observable fact in the original Marlowe Crowne Social Desirability Scale as well (Loo and Thorpe, 2000). Although, once two dimensions may be expected, the true and false, an EFA was performed defining the extraction to two factors. The two oriented factors have emerged in spite of some concerns, essentially due to loadings significance and communalities. After running different methods and after proceeding with some repairs and improvements of the factorial structure, the final pattern matrix ended up with two factors and eight items. Once the total SD scale (eight items) exhibits a Cronbach's Alpha of 0.677 and given the role of this variable to the study, a control variable, a composite score of the average of the items, was computed to create a SD total mean score following the analogous use of mean or total sum scale of SD in other studies (e.g. Cabral and Carvalho, 2014; Fasbender and Wang, 2017). The total scale mean score was calculated to control for SD in the inferential analysis.

Table 2. Exploratory factor analysis final data report

	K items	Kaiser-Meyer-Olkin (KMO)	Bartlett's Test of Sphericity	Cronbach's Alpha (α)
Emotional intelligence (16 items)	16	0.848	0.00	0.865
SEA: Self-emotions appraisal	4	-	-	0.757
OEA: Others-emotions appraisal	4	-	-	0.721
UOE: Use of emotion	4	-	-	0.700
ROE: Regulation of emotion	4	-	-	0.874
Cultural intelligence (19 items)	19	0.887	0.00	0.888
MC: Metacognitive	4	-	-	0.792
COG: Cognitive	6	-	-	0.852
MOT: Motivational	4	-	-	0.760
BEH: Behavioral	5	-	-	0.792
Social desirability (8 items)	8	0.779	0.00	0.677
SD: False oriented items	5	-	-	0.782
SD: True oriented items	3	-	-	0.569

Source: Authors' own preparation

5.1.2. Confirmatory factor analysis

The measurement model that will sustain the hypotheses testing must be valid and reliable. Therefore, we conducted a confirmatory factor analysis (CFA) with the maximum-likelihood method, before inferential analysis, in order to assess reliability, construct validity and effectively validate the factor structure. With a theoretically and empirically defined factor structure, which also emerged in EFA respectively, the CFA is performed in all dimensions of the key variables of the research, EI and CQ.

In relation to convergent validity, the standardized loadings estimates must meet the adequate minimum of 0.5 (Hair *et al.* 2014).The average variance extracted (AVE) should be 0.5 or higher (Fornell and Larcker, 1981) to be considered a good indicator and to attest convergent validity (Hair *et al.* 2014). Composite reliability (CR) is other important point within convergent validity. Although good reliability factors CR should be 0.7 or higher, values between 0.6 and 0.7 may be acceptable (Hair *et al.* 2014). To conduct this analysis, the first indicator that should be observed concerns the significance of unstandardized factor loadings which in the present study are all statistically significant, a fact that is a good indicator for convergent validity (Hair *et al.* 2014). Regarding standardized loadings, two of them have values below 0.5, each one in a different factor (OEA and UOE respectively). These two factors' AVEs are below 0.5. Given these issues, and in order to improve convergent validity, variables number three of OEA factor and number two of UOE were deleted. Despite these remedies, other issues relating to convergent validity subsisted. To address them, namely low AVEs, items number four of SEA,

number two of COG, number four of MOT and number five of BEH were deleted, due to their low estimates (in spite of acceptable were in the 0.5s).Taking into account the stated rules by Hair *et al.* (2014), constructs should be represented by a minimum of three indicators and preferable by four. As Hair *et al.* (2014) emphasize, having constructs represented by three indicators is acceptable specially when integrated in a study with constructs with more indicators. This rule of thumb was taken into account in the elimination of items.

In relation to the final solution, the CFA shows that all the unstandardized factor loadings are significant. All items have standardized loadings above 0.5 and eighteen of the final twenty-nine are above 0.7. Regarding the AVE of the factors (Table 3), the values attest convergent validity, despite some AVEs being slightly below 0.5. Other studies are in line with these AVE results (e.g. Ang *et al.* 2007; Naude *et al.* 2014). It should be emphasized that, being AVE a more conservative measure compared to CR, convergent validity may be recognized based on CR exclusively, despite more than 50 percent of the variance being linked to measurement error (Fornell and Larcker, 1981; Malhotra, 2010).Thus, given the observed indicators and the fact that CR of all factors is good, that is, above 0.7, accordingly to Malhotra (2010) convergent validity was established.

Table 3. Confirmatory factor analysis final data report

	K items	AVE	CR
Emotional intelligence			
SEA: Self-emotions appraisal	3	0.520	0.760
OEA: Others-emotions appraisal	3	0.524	0.767
UOE: Use of emotion	3	0.461	0.713
ROE: Regulation of emotion	4	0.649	0.880
Cultural intelligence			
MC: Metacognitive	4	0.504	0.800
COG: Cognitive	5	0.525	0.846
MOT: Motivational	3	0.496	0.743
BEH: Behavioral	4	0.496	0.794

Source: Authors' own preparation

Discriminant validity assesses if there is a difference between the construct and other constructs (Hair *et al.* 2014; Malhotra, 2010). According to what it is intended to be verified, the used method involves the assessment of the AVE and if it is greater than the squared interconstruct correlations (Hair *et al.* 2014; Malhotra, 2010). In the present study, all AVE are higher than the square of the correlations between the different factors, attesting discriminant validity.

To diagnose model validity and assume the estimated model, the examination of standardized residuals and of modification indexes (Hair *et al.* 2014) are other important procedures. The standardized residuals which are less than |2.5| do not suggest problems. These, if greater than |4.0|, might mean a possible elimination of the variables in question, while if in the interval |2.5| and |4.0| some analysis is required, which does not imply mandatory changes if no remaining issues are associated with those variables (Hair *et al.* 2014). Modification indices also deserved some attention (Hair *et al.* 2014). Taking into account these rules of thumb, no protruding problems or suggestions arose.

In order to assess the overall model fit, a set of indicators[1] are taken into account and, although no absolute values for their interpretation exist, as they vary from situation to situation, there are reference values accepted as guidelines (Hair *et al.* 2014). Insofar as multiple fit indices with different natures should be reported (Hair *et al.* 2014; Malhotra, 2010), to assess

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[1] Root mean square residual (RMR); comparative fit index (CFI); parsimony comparative fit index (PCFI); root mean square error of approximation (RMSEA) (Arbuckle, 2017). Standardized root mean square residual (SRMR) (Malhotra, 2010). The P close "is a *p* value for testing the null hypothesis that the population RMSEA is no greater than 0.05" (Arbuckle, 2017, p. 645).

the present model fit, the following is used. Chi-square (χ^2) = 579.194 with df = 349, *p* = 0.000 and χ^2 / df = 1.660. In spite of the significance, the model is accepted due to the test sensitivity to sample size, for the reason that as the sample size increases the possibility of rejecting a true model also increases (Bagozzi and Yi, 1988). According to Hair *et al.* (2014) once the normed χ^2 is below 2, which is very good, it indicates an acceptable model fit. RMR = 0.027, which, according to Byrne (2010) is less than 0.05, and therefore indicates a good model fit. CFI = 0.938 which, despite not being higher than 0.95 (Hu and Bentler, 1999), attests a good model fit (Malhotra, 2010). PCFI = 0.806 that, according to Byrne (2010) represents a value within the expected admissible values range. According to Mulaik *et al.* (1989, p. 439) "it is not inconceivable to have acceptable models with nonsignificant chi-squares, goodness-of-fit indices in the high 0.90s, and parsimonious-fit indices in the 0.50s". SRMR = 0.0521, thus, below 0.08, indicating good model fit (Malhotra, 2010). RMSEA = 0.046 (90 percent confidence interval for RMSEA going from 0.040 to 0.053). Therefore, RMSEA is less than the cutoff value of 0.06 according to Hu and Bentler (1999) and even lower than 0.05, thus, indicating good fit (Arbuckle, 2017). The Pclose = 0.808 indicates closeness of fit, once it is>0.05 according to Browne and Cudeck (1992). Given the observed indicators, this model has good fit.

Subsequently, EI and CQ were modeled as second-order factors. The CFA supports convergent and discriminant validity between EI and CQ, and good model fit (Chi-square (χ^2) = 634.179 with df = 368, *p* = 0.000 and χ^2 / df = 1.723; RMR = 0.031; CFI = 0.928; PCFI = 0.841; SRMR = 0.0599; RMSEA = 0.049; Pclose = 0.632).

5.1.3. Common method bias and inferential analysis preparation

Following the issues concerning common method bias (CMB), it should be noted the fact that in this research both dependent and independent variables were collected from the same source. Despite the accounted methods, due to the fact that CMB may be a concern, some procedures were taken to avoid CMB. Following Podsakoff *et al.* (2003) the Harman's single factor test was performed (e.g. Crowne, 2013a; Moon, 2010), entering all variables of the study into an exploratory factor analysis. In the unrotated factor solution, fourteen factors emerged. No substantial amount of common method variance exists due to no single factor having emerged and no general factor having accounted for the majority of the variance as Podsakoff *et al.* (2003) states. In fact, the largest factor just explains 19.89 percent of the 64.05 percent total variance explained. This result suggests that CMB is not a major concern. Additionally to the referred *ex ante* and *ex post* actions to control CMB, as a complementary procedure to a more refined control of this effect, social desirability integrates the hypotheses testing to mitigate its effects in the analysis as a control variable, as in other studies (e.g. Crowne, 2013a; Fasbender and Wang, 2017; Ponterotto *et al.* 2011).

Therefore, after CFA and after controlling for CMB, through AMOS data imputation, the constructs scores were computed, to EI, CQ and their dimensions, respectively. Following other studies methodology (e.g. Ang *et al.* 2007; Caputo *et al.* 2018; Lin *et al.* 2012; Moon, 2010), with similar sample dimension, after CFA, regression analysis was performed in order to test the hypotheses. Therefore, as in similar studies, we adopted the hierarchical regression analysis methodology (e.g. Lin *et al.* 2012; Moon, 2010) and partial correlations analysis(e.g. Imai and Gelfand, 2010).

5.2. Correlation analysis

To support an initial assessment of the relationships between the research variables, we performed a correlation analysis. Means and standard deviations are reported in Table 4.

Table 4. Descriptive statistics and correlations

Variables	Mean	Standard Deviation	EI	CQ	SEA	OEA	UOE	ROE	MC	COG	MOT	BEH	Age	G	RIE	SD
EI	2.19	0.22	1	0.763**	0.888**	0.840**	0.779**	0.817**	0.699**	0.442**	0.604**	0.589**	0.016	0.022	0.085	0.492**
CQ	3.13	0.33	0.763**	1	0.590**	0.550**	0.584**	0.521**	0.957**	0.599**	0.899**	0.870**	-0.012	-0.012	0.145*	0.295**
SEA	2.58	0.30	0.888**	0.590**	1	0.696**	0.607**	0.630**	0.544**	0.345**	0.434**	0.422**	0.009	0.060	0.044	0.416**
OEA	3.29	0.42	0.840**	0.550**	0.696**	1	0.548**	0.605**	0.512**	0.333**	0.378**	0.404**	-0.049	0.068	0.036	0.334**
UOE	2.74	0.32	0.779**	0.584**	0.607**	0.548**	1	0.565**	0.536**	0.239**	0.483**	0.457**	0.056	0.001	0.100	0.502**
ROE	3.64	0.63	0.817**	0.521**	0.630**	0.605**	0.565**	1	0.435**	0.344**	0.419**	0.390**	0.066	-0.053	0.060	0.478**
MC	3.39	0.38	0.699**	0.957**	0.544**	0.512**	0.536**	0.435**	1	0.498**	0.801**	0.776**	-0.015	-0.013	0.121*	0.250**
COG	2.73	0.48	0.442**	0.599**	0.345**	0.333**	0.239**	0.344**	0.498**	1	0.531**	0.449**	0.052	0.014	0.158**	0.101
MOT	3.45	0.43	0.604**	0.899**	0.434**	0.378**	0.483**	0.419**	0.801**	0.531**	1	0.732**	0.005	-0.025	0.162**	0.267**
BEH	3.35	0.40	0.589**	0.870**	0.422**	0.404**	0.457**	0.390**	0.776**	0.449**	0.732**	1	-0.055	-0.014	0.111	0.199**
Age	48.15	10.85	0.016	-0.012	0.009	-0.049	0.056	0.066	-0.015	0.052	0.005	-0.055	1	-0.211**	0.091	0.188**
G	1.29	0.45	0.022	-0.012	0.060	0.068	0.001	-0.053	-0.013	0.014	-0.025	-0.014	-0.211**	1	-0.053	0.044
RIE	1.22	1.92	0.085	0.145*	0.044	0.036	0.100	0.060	0.121*	0.158**	0.162**	0.111	0.091	-0.053	1	0.140*
SD	3.59	0.55	0.492**	0.295**	0.416**	0.334**	0.502**	0.478**	0.250**	0.101	0.267**	0.199**	0.188**	0.044	0.140*	1

Note: *. Correlation is significant at the 0.05 level (2-tailed). **. Correlation is significant at the 0.01 level (2-tailed).
Source: Authors' own preparation

The EI and CQ constructs are significantly correlated. For further consideration, this conclusion will be addressed in hypothesis one. Significant correlations are observable within the constructs and their respective dimensions.

5.3. Hypotheses testing

To carry out the hypotheses testing, partial correlations and hierarchical regression analyses were performed in IBM SPSS Statistics version 25 controlling for age, gender, respondents' international experience and social desirability. In relation to sample size adequacy, the rule of five observations for each independent variable is verified, as well as the preferable level of fifteen or even twenty observations for each independent variable (Hair *et al.* 2014).

5.3.1. Hypothesis 1 (H$_1$)

Hypothesis one stated that EI and CQ are positively correlated. Pearson correlation coefficient will be calculated to assess the correlation between the constructs.

Table 5. Pearson correlation between EI and CQ (testing H$_1$)

		EI	CQ
EI	Pearson Correlation	1	0.763**
	Sig. (2-tailed)		0.000
CQ	Pearson Correlation	0.763**	1
	Sig. (2-tailed)	0.000	

Note: **. Correlation is significant at the 0.01 level (2-tailed).
Source: Authors' own preparation

The two constructs are positively correlated (Table 5) and, following Field (2009), with a large effect of $r = 0.763$ significant at $p < 0.01$. In order to improve the analysis with a better understanding of this correlation, a partial one is conducted, controlling for age, gender, RIE and SD.

Table 6. Partial correlation between EI and CQ controlling for age, gender, RIE and SD (testing H$_1$)

Control Variables			EI	CQ
Age	**EI**	Correlation	1.000	0.743
		Significance (2-tailed)		0.000
Gender		df	0	301
RIE	**CQ**	Correlation	0.743	1.000
SD		Significance (2-tailed)	0.000	
		df	301	0

Source: Authors' own preparation

Regarding the results in Table 6, it should be noted that the fourth-order partial correlation between EI and CQ controlling for age, gender, RIE and SD is not very different from the zero-order correlation in Table 5. Therefore, without the effects of age, gender, respondents' international experience and social desirability, EI can account for (0.743^2 = 55.20 percent) of the variance in CQ and vice versa. As a result, hypothesis one is supported.

5.3.2. Hypothesis 2 (H$_2$)

This hypothesis stated that OEA and UOE have greater value predicting CQ than SEA and ROE dimensions of EI. Two major hierarchical regression analyses were performed where hypothesis two is tested with EI's four predictors jointly with the specified control variables. The considered confidence interval is of 95 percent. Results are reported in Table 7 and 8.

Table 7. Hierarchical regression (SEA and ROE predicting value, dependent variable CQ)

	coefficient	t-ratio	p-value
Model 1			
Age	-0.085	-1.495	0.136
Gender	-0.037	-0.657	0.512
RIE	0.109	1.972	0.050
SD	0.298	5.302	0.000
R^2= 0.105		Adjusted R^2= 0.093	
F (4, 302) = 8.851		P-value (F) = 0.000	
Model 2			
Age	-0.046	-0.984	0.326
Gender	-0.028	-0.604	0.546
RIE	0.115	2.536	0.012
SD	-0.010	-0.191	0.849
SEA	0.245	4.022	0.000
ROE	0.437	7.429	0.000
R^2 = 0.400		Adjusted R^2= 0.388	
F (6, 300) = 33.375		P-value (F) = 0.000	

Source: Authors' own preparation

According to the statistic F test, the hierarchical regression models are significant at $p<$ 0.001. Therefore, following Field (2009), the models predict CQ significantly well. They significantly fit the data (Field, 2009).

When OEA and UOE are regressed over CQ, in model two, R^2 shows that independent variables can account for 42.8 percent of the variation in CQ (Table 8). The changes in R^2 are significant with a probability less than 0.001. EI's dimensions account for 32.3 percent of the variation in CQ. As can be seen, the inclusion of these two factors explains a large amount of variation in CQ. Looking to the value of how well the model generalizes, the adjusted R^2 says that 41.7 percent of the variation in CQ can be explained by the independent variables. The results may possibly be generalizable given the ratio of observations to variables and due to the adjusted R^2 with a little loss in predictive power comparing to R^2, revealing a lack of overfitting (Hair *et al.* 2014).

Table 8. Hierarchical regression (OEA and UOE predicting value, dependent variable CQ)

	coefficient	t-ratio	p-value
Model 1			
Age	-0.085	-1.495	0.136
Gender	-0.037	-0.657	0.512
RIE	0.109	1.972	0.050
SD	0.298	5.302	0.000
R^2= 0.105		Adjusted R^2= 0.093	
F (4, 302) = 8.851		P-value (F) = 0.000	
Model 2			
Age	-0.029	-0.635	0.526
Gender	-0.035	-0.775	0.439
RIE	0.097	2.181	0.030
SD	-0.027	-0.520	0.604
OEA	0.334	6.322	0.000
UOE	0.407	7.107	0.000
R^2 = 0.428		Adjusted R^2= 0.417	
F (6, 300) = 37.441		P-value (F) = 0.000	

Source: Authors' own preparation

With the performed regressions, Table 7 and 8 show that OEA and UOE exhibited a greater ΔR^2 (32.3 percent), predicting CQ after controlling for age, gender, RIE and SD than SEA and ROE (ΔR^2 = 29.5 percent). As expected, positive relationships between all significant independent variables and CQ are observable.

We performed a casewise diagnostics concerning outliers and influential cases to assess the regression models. Following Field (2009), none of the cases that deserved some attention exhibited a Cook's distance greater than one, a centered leverage value greater than three times the calculated average value and were above an absolute value of one concerning DF Beta statistics. Following the above procedures, no influential cases were detected. Multicollinearity exists if correlations are very high, that is, above 0.8 or 0.9 (Field, 2009). Accordingly to Field (2009), no multicollinearity problems exist given no substantial correlations above 0.8 between predictors. Variance Inflation Factor (VIF) values of β coefficients obey to the parameters of no multicollinearity, in line with Field (2009) that values must be inferior to 10. Regarding the T tolerance values, they are not near zero and, following Field (2009) once they are greater than 0.2, it can be concluded that there is no multicollinearity in the regression.

The assumption that errors are independent is verified with a Durbin-Watson (*d*) = 1.931 and *d* = 2.071 to the first and second (Table 7 and 8) regression analysis, respectively (Field, 2009). According to Field (2009), the assumptions of linearity and homoscedasticity are verified. Finally, the assumption of normality of the residuals was tested and verified (Field, 2009).

To observe the hypothesis support, it can be concluded that the OEA and UOE dimensions of EI make a significant contribution, with *p* < 0.001, in predicting CQ. They increased R^2 by 32.3 percent. Concerning the other performed regression, SEA and ROE brought an increased R^2 by 29.5 percent. Therefore, OEA and UOE have greater value predicting CQ than SEA and ROE. Hypothesis two is supported.

5.3.3. Hypotheses 3, 4, 5 and 6 (H₃, H₄, H₅, H₆)

These hypotheses state a set of relationships between EI's and CQ's dimensions. The following partial correlations analysis (Table 9) tests the four hypotheses.

Table 9. Partial correlations of EI and CQ dimensions (testing H$_3$, H$_4$, H$_5$, H$_6$)

Control Variables				Cultural intelligence			
				MC	COG	MOT	BEH
Age Gender RIE SD	Emotional intelligence	SEA	Correlation	0.502	0.343	0.373	0.381
			Significance (2-tailed)	0.000	0.000	0.000	0.000
			df	301	301	301	301
		OEA	Correlation	0.470	0.329	0.320	0.362
			Significance (2-tailed)	0.000	0.000	0.000	0.000
			df	301	301	301	301
		ROE	Correlation	0.371	0.348	0.345	0.342
			Significance (2-tailed)	0.000	0.000	0.000	0.000
			df	301	301	301	301
		UOE	Correlation	0.487	0.219	0.415	0.417
			Significance (2-tailed)	0.000	0.000	0.000	0.000
			df	301	301	301	301

Source: Authors' own preparation

Positive statistically significant correlations are observable, in Table 4, between all the hypothesized relations of these hypotheses. Following the methodological line of this paper, partial correlations controlling the effects of age, gender, RIE and SD were calculated and are presented in Table 9. Assessing the strength and direction of the relationship between the variables, it is observable that all the dimensions, concerning EI and CQ, according to the results, are significantly correlated and all with a positive orientation. So, the partial correlation between SEA and MC is statistically significant, *p*-value < 0.05, and exhibits a positive value of 0.502. In relation to variance, R^2 for this partial correlation is 0.25176. Therefore, SEA can account for 25.18 percent of the variance in MC and vice versa (Field, 2009). Concluding, self-emotions appraisal (SEA) is positively related to metacognitive (MC). Thus, hypothesis three is supported.

All the other hypothesized relations (H$_4$, H$_5$ and H$_6$) are observed in statistically significant positive partial correlations. In these partial correlations, a small decrease in the strength of Pearson correlations is verifiable but with the same positive direction. Therefore, even controlling for age, gender, RIE and SD, strong correlations between the dimensions are observable.

Regulation of emotion (ROE) is positively related to motivational (MOT) and behavioral (BEH) dimensions of CQ. Thus, hypothesis four is supported. Others-emotions appraisal (OEA) is positively related to metacognitive (MC), motivational (MOT) and behavioral (BEH) dimensions of CQ. Thus, hypothesis five is supported. Use of emotion (UOE) is positively related to metacognitive (MC), cognitive (COG), motivational (MOT) and behavioral (BEH) dimensions of CQ. Therefore, hypothesis six is supported.

5.3.4. Summary report

Table 10 shows a brief resume of the status of the hypothesis testing respectively.

Table 10. Hypotheses summary report

H$_1$	Supported	EI and CQ are positively correlated
H$_2$	Supported	OEA and UOE have a greater value predicting CQ than SEA and ROE
H$_3$	Supported	SEA is positively related to MC
H$_4$	Supported	ROE is positively related to MOT and BEH
H$_5$	Supported	OEA is positively related to MC, MOT and BEH
H$_6$	Supported	UOE is positively related to MC, COG, MOT and BEH

Source: Authors' own preparation

Given the results, all the correlations supported the hypotheses and the adjusted R^2 in the regression models exhibited a little loss in predictive power comparing to R^2. A lack of overfitting was observed that, jointly with the ratio of observations to variables, allow the possibility to the generalization of results (Hair *et al.* 2014). Another result that emerges, concerns to SD. There was no evidence of CMB given the fact that no pervasive problems concerning SD response tendency emerged in the hypothesis testing. In fact, when the effect of SD was removed, the partial correlations exhibited just a small decrease in the strength of Pearson correlations. Concerning the hierarchical regressions, the effect of SD was not a concern.

6. Discussion

The major purpose of this research was to study in an international management context the relationship between emotional intelligence (EI) and cultural intelligence (CQ). As a starting point, it should be emphasized that the discriminant validity between the two intelligences was attested, as well the construct validity of each one. This research revealed, within the international nature of the sample, that EI and CQ are two distinct constructs, although highly positively correlated. This suggests that, within the context of international SMEs, top managers' EI is strongly associated with CQ in the accomplishment of their international responsibilities. An important complementarity of these two intelligences emerge in this research, showing that individuals high in emotional intelligence should also display high levels of cultural intelligence and vice versa, with an explained variance by each intelligence of around 55 percent. Therefore, within the international management field and internationalization processes, a significant association and complementarity between EI and CQ emerges in top managers that operate in those intercultural contexts. To the extent that EI and CQ have the potential to improve individuals intercultural actions (Gunkel *et al.* 2016), the paramount importance of both the intelligences within cross-cultural contexts is clear, given their association not only in the overall constructs but also, as this research attests, within the diverse dimensions.

Given the significant positive relation between the two intelligences, the empirical investigation demonstrated that international decision makers who better appraise their own emotions and those of others, and who better use and regulate emotions also better define cognitive strategies, have cultural knowledge, direct attention and energy in intercultural contacts, and show adequate verbal and nonverbal capabilities in cross-cultural situations. These results are in line with the fact that "EQ leads to CQ" (Jyoti and Kour, 2017, p. 770) and with Alon and Higgins (2005), when they emphasize the stimulating value of CQ over EI. Table 10 reports on hypothesis one support as well as on the following results of hypotheses two to six.

Concerning the dimensions of EI, others-emotions appraisal (OEA) and use of emotion (UOE) exhibited a significant contribution in predicting CQ (Tables 7, 8, and 10 support hypothesis two) over and above all other control variables and the other EI dimensions. Therefore, the results attest that the capability to perceive and understand the emotions and the mind of others (Wong and Law, 2002), where nonverbal emotional perception is decisive as well as empathy creation (Salovey and Mayer, 1990) and, the capability to direct emotions to improve performance (Law *et al.* 2008) predict overall CQ, that is, the "capability to adapt effectively to new cultural contexts" (Earley and Ang, 2003, p. 59). It should also be noted that self-emotions appraisal (SEA) and regulation of emotion (ROE) were significant predicting CQ. Thus, the ability to understand, express and regulate emotions, i.e. to control unpleasant and pleasant emotions (Salovey and Mayer, 1990) and to maintain balance, being less likely to lose temper (Law *et al.* 2004) predict significantly the capability to adapt to cross-cultural environments. In this stage of the research, top managers' previous international experience is positively related to CQ. Despite its weakness, respondents' international experience is as a significant predictor of CQ (Table 7 and 8). This suggests that individuals' previous international experience in other countries may help them to be more cultural conscious, knowledgeable, motivated and flexible to interact with different cultural realities.

In relation to self-emotions appraisal, results indicate that the capability to recognize, understand and express emotions, for introspection, and to process emotional information

(Salovey and Mayer, 1990) is positively related to the capability of "cultural consciousness and awareness during cross-cultural interactions" (Moon, 2010, p. 892). Thus, the more international top managers are aware of the self and the more they know about their own emotions the more they are prone to control their cognition, be aware of the necessary reflection, use and adjustment of cultural knowledge in multicultural interactions, learn cultural knowledge, and respond to the different cultural stimuli.

Another result shows that the decision makers' ability to regulate emotions is positively related to the motivational and behavioral capabilities of CQ. Thus, the capability that helps to manage and to create favorable situations in social interactions (Law *et al.* 2004), a relevant feature in the working context (Law *et al.* 2008), and that helps to maintain balance (Law *et al.* 2004), is positively associated with CQ motivational dimension: the desire and capability to generate attention and energy in different contexts toward multicultural learning (Ang *et al.* 2007); to establish intercultural contacts and even enjoy a special taste in their promotion and adaptation (Imai and Gelfand, 2010); and to feel more self-confidence when interacting within multicultural environments (Groves *et al.* 2015). According to the results, top managers with higher levels of regulation of emotion are more likely to be flexible and to facilitate behaviors in different multicultural circumstances and to use appropriate verbal and nonverbal communication that leads to a greater adjustment to cultural diversity. Therefore, international decision makers that can manage their temper, to control unpleasant and pleasant situations, to manage and create favorable situations in social interactions, are more capable in international contexts to generate attention and energy, to establish intercultural contacts and to behaviorally adapt to those cultural contexts, and to use appropriate verbal and nonverbal communication.

Concerning the relationship between others-emotions appraisal and metacognitive (MC), motivational (MOT) and behavioral (BEH) dimensions, the results indicate that the capability to assess and recognize emotions in others, of nonverbal emotional perception of others and to create empathy, allows to act accordingly and to promote flexibility in different cultural contexts. This positive relationship means increasing capacities to assess and understand the emotions of others seem to allow international decision makers' awareness of cultural and social interactions making them better prepared for intercultural contacts and for critical thinking in the diverse situations. Having these kinds of emotional capabilities allows them to promote intercultural contacts and adaptive behaviors, to have the flexibility in diverse multicultural settings and to use appropriate verbal and nonverbal communication.

With respect to use of emotion (UOE), this dimension reflects the ability of individuals to use emotions to improve performance, for instance, to use emotions to leverage positive emotional scenarios that facilitate problem solving (Salovey and Mayer, 1990). In fact, those who can achieve high levels in this dimension "would be able to encourage him/herself to do better continuously and to direct his/her emotions in positive and productive directions" (Law *et al.* 2008, p. 53). Therefore, use of emotion being positively related to all the four CQ dimensions suggests that international decisions makers that better use emotions in intercultural situations appear to be more capable to have cultural consciousness, to be aware of the necessary reflection, to use and adjust cultural knowledge and to respond to the different cultural stimuli (MC). Those who better use emotions appear to be more capable to acquire cultural knowledge (COG). Once they are better prepared to use emotions, it appears they are more prone to direct attention and energy to different intercultural interactions (MOT). This emotional capability suggests that, in international contexts, top managers that are gathering experience by using emotions are also more capable to have the flexibility in diverse situations they acquired using appropriate verbal and nonverbal communication (BEH).

The observed results in this research may constitute an important contribution to the theoretical and empirical grounds of EI and CQ as well as to promote further research. Additionally, in a human resources point of view, it should be noted that EI and CQ must be taken into account within international field recruitments once the two intelligences act jointly in a significantly way.

7. Conclusion

Within the context of international SMEs, decision-makers' psychological characteristics are emphasized in this research. As important capabilities in international environment, EI and CQ relationship was assessed, leading this research to an important empirical contribution concerning the study of both intelligences and respective relationship. As a major vector, this research attests that dealing well with emotions appears to help and improve individuals' capabilities to deal with different cultural environments, as well as dealing well with new cultural contexts appears to improve the capabilities to, in intercultural contexts, dealing with emotions. In fact, when interacting in multicultural contexts, different emotional spectrums exist, showing that CQ plays an important role understanding and dealing with emotions. Therefore, an important role of the two intelligences is patent in enabling international top managers to execute their international activities. However, investigating EI and CQ jointly and the relationship between them, as recent constructs in psychology, remain understudied.

8. Limitations, future research avenues

Methodologically, it should be highlighted the self-report nature of the used variable measures. This fact can typically lead to biases (Thompson and Phua, 2005). However, with regard to the study of intelligences, psychology widely uses self-report measures, they are broadly accepted, specifically with EI and CQ (e.g. Ang *et al.* 2007; Imai and Gelfand, 2010; Lin *et al.* 2012; Rockstuhl *et al.* 2011). Although validated, there are in fact limitations in the use of these self-report measures (Imai and Gelfand, 2010) and, many scholars report the need to use objective tests to assess intelligence levels in opposition to the self-report ones. However, it should be noted all the conceptual and measurement difficulties of intelligence, given that in its scope, the reality is so vast and complex that it surpasses any type of measure and theory (Sternberg, 1985). Within investigations of this nature, to assess CQ it is suggested the application of the expanded scale of Van Dyne *et al.* (2012), given the improvement of the four dimensions measurement. Following Moon (2010), personality should also be accounted for in studies of this nature as an important antecedent of CQ and EI. To improve the body of knowledge concerning these two intelligences and their relationship, it is suggested the examination of the hypothesis in this study in other samples and other cultural realities. Studying their complementarity impact in internationalization processes, firm performance and job performance are other important lines of research.

References

Adomako, S., Frimpong, K., Mohammed, R. A., Opoku, R. A., and Hussain, R., 2019. Chief executive officers' dispositional optimism, host country's rule of law, and foreign market equity mode choice of Ghanaian small and medium-sized enterprises. *Thunderbird International Business Review*, pp.1–13. https://doi.org/10.1002/tie.22109

Alon, I., and Higgins, J. M., 2005. Global leadership success through emotional and cultural intelligences. *Business Horizons*, 48(6), pp. 501–512. https://doi.org/10.1016/j.bushor.2005.04.003

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

Ang, S., Van Dyne, L., Koh, C., Ng, K. Y., Templer, K. J., Tay, C., and Chandrasekar, N. A., 2007. Cultural intelligence: its measurement and effects on cultural judgment and decision making, cultural adaptation and task performance. *Management and*

Organization Review, 3(3), pp. 335–371. https://doi.org/10.1111/j.1740-8784.2007.00082.x

Anwar, M., Shah, S. Z. A., and Khan, S. Z., 2018. The role of personality in SMEs internationalization: empirical evidence. *Review of International Business and Strategy*, 28(2), pp. 258–282. https://doi.org/10.1108/RIBS-12-2017-0113

Arbuckle, J. L., 2017. *IBM SPSS Amos 25: User's guide*. Amos Development Corporation. [online]. Available at: http://amosdevelopment.com/download/CurrentUserGuide_EN.pdf [Accessed on 1 January 2020].

Bagozzi, R. P., and Yi, Y., 1988. On the evaluation of structural equation models. *Journal of the Academy of Marketing Science*, 16(1), pp. 74–94. https://doi.org/10.1007/BF02723327

Behling, O., and Law, K. S., 2000. Solving semantic problems: translation/back-translation, In: O., Behling, and K. S., Law, 2000. *Translating qestionnaires and other research instruments: Problems and solutions*. Thousand Oaks, CA: Sage Publications Inc. pp. 19–21.

Browne, M. W., and Cudeck, R., 1992. Alternative ways of assessing model fit. *Sociological Methods & Research*, 21(2), pp. 230–258. https://doi.org/10.1177/0049124192021002005

Byrne, B. M., 2010. *Structural equation modeling with AMOS: basic concepts, applications, and programming*, 2nd ed. New York, USA.

Cabral, A. M. R., and Carvalho, F. M. P. O., 2014. Emotional intelligence and ethics on organizations. *Open Journal of Business and Management*, 2(1), pp. 5–23. https://doi.org/10.4236/ojbm.2014.21004

Caputo, A., Ayoko, O. B., and Amoo, N., 2018. The moderating role of cultural intelligence in the relationship between cultural orientations and conflict management styles. *Journal of Business Research*, 89, pp. 10–20. https://doi.org/10.1016/j.jbusres.2018.03.042

Carvalho, V. S., Guerrero, E., Chambel, M. J., and González-Rico, P., 2016. Psychometric properties of WLEIS as a measure of emotional intelligence in the Portuguese and Spanish medical students. *Evaluation and Program Planning*, 58, pp. 152–159. https://doi.org/10.1016/j.evalprogplan.2016.06.006

Cho, S., Drasgow, F., and Cao, M., 2015. An investigation of emotional intelligence measures using item response theory. *Psychological Assessment*, 27(4), pp. 1241–1252. https://doi.org/10.1037/pas0000132

Cote, S., and Miners, C. T. H., 2006. Emotional intelligence, cognitive intelligence, and job performance. *Administrative Science Quarterly*, 51(1), pp. 1–28. https://doi.org/10.2189/asqu.51.1.1

Crowne, K. A., 2009. The relationships among social intelligence, emotional intelligence and cultural intelligence. *Organization Management Journal*, 6(3), pp. 148–163. https://doi.org/10.1057/omj.2009.20

Crowne, K. A., 2013a. An empirical analysis of three intelligences. *Canadian Journal of Behavioural Science/Revue Canadienne Des Sciences Du Comportement*, 45(2), pp. 105–114. https://doi.org/10.1037/a0029110

Crowne, K. A., 2013b. Cultural exposure, emotional intelligence, and cultural intelligence: An exploratory study. *International Journal of Cross Cultural Management*, 13(1), pp. 5–22.https://doi.org/10.1177/1470595812452633

Darvishmotevali, M., Altinay, L., and De Vita, G., 2018. Emotional intelligence and creative performance: looking through the lens of environmental uncertainty and cultural intelligence. *International Journal of Hospitality Management*, 73, pp. 44–54. https://doi.org/10.1016/j.ijhm.2018.01.014

Devonish, D., and Greenidge, D., 2010. The effect of organizational justice on contextual performance, counterproductive work behaviors, and task performance: investigating the moderating role of ability-based emotional intelligence. *International Journal of Selection and Assessment*, 18(1), pp. 75–86. https://doi.org/10.1111/j.1468-2389.2010.00490.x

Earley, P. C., and Ang, S., 2003. A theory of cultural intelligence, In: P.C., Earley, and S., Ang, eds., 2003. *Cultural intelligence: Individual interactions across cultures*. Standford, C.A:

Standford University Press. pp. 59–92.

Earley, P. C., and Mosakowski, E., 2004. Cultural intelligence. *Harvard Business Review*, 82(10), pp.139–146.

Fasbender, U., and Wang, M., 2017. Intergenerational contact and hiring decisions about older workers. *Journal of Managerial Psychology*, 32(3), pp. 210–224. https://doi.org/10.1108/JMP-11-2016-0339

Field, A., 2009. *Discovering statistics using SPSS.* 3rd ed. London: SAGE Publications Ltd.

Fornell, C., and Larcker, D. F., 1981. Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), pp. 39–50. https://doi.org/10.2307/3151312

Gabel, R. S., Dolan, S. L., and Cerdin, J. L., 2005. Emotional intelligence as predictor of cultural adjustment for success in global assignments. *Career Development International*, 10(5), pp. 375–395. https://doi.org/10.1108/13620430510615300

Groves, K. S., Feyerherm, A., and Gu, M., 2015. Examining cultural intelligence and cross-cultural negotiation effectiveness. *Journal of Management Education*, 39(2), pp. 209–243. https://doi.org/10.1177/1052562914543273

Gunkel, M., Schlaegel, C., and Taras, V., 2016. Cultural values, emotional intelligence, and conflict handling styles: A global study. *Journal of World Business*,51(4), pp. 568–585. https://doi.org/10.1016/j.jwb.2016.02.001

Gunkel, M., Schlagel, C., and Engle, R. L., 2014. Culture's influence on emotional intelligence: An empirical study of nine countries. *Journal of International Management*, 20(2), pp. 256–274. https://doi.org/10.1016/j.intman.2013.10.002

Hair, J. F., Black, W. C., Babin, B. J., and Anderson, R. E., 2014. *Multivariate data analysis.* 7th ed. Harlow: Pearson Education Limited.

Hsu, W.-T., Chen, H.-L., and Cheng, C.-Y., 2013. Internationalization and firm performance of SMEs: The moderating effects of CEO attributes. *Journal of World Business*, 48(1), pp. 1–12. https://doi.org/10.1016/j.jwb.2012.06.001

Hu, L., and 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), pp. 1–55. https://doi.org/10.1080/10705519909540118

Imai, L., and Gelfand, M. J., 2010. The culturally intelligent negotiator: The impact of cultural intelligence (CQ) on negotiation sequences and outcomes. *Organizational Behavior and Human Decision Processes*, 112(2), pp. 83–98. https://doi.org/10.1016/j.obhdp.2010.02.001

Ingram, A., Peake, W. O., Stewart, W., and Watson, W., 2019. Emotional intelligence and venture performance. *Journal of Small Business Management*, 57(3), pp. 780–800. https://doi.org/10.1111/jsbm.12333

Ismail, N. A., and Kuivalainen, O., 2015. The effect of internal capabilities and external environment on small- and medium-sized enterprises' international performance and the role of the foreign market scope: The case of the Malaysian halal food industry. *Journal of International Entrepreneurship*, 13(4), pp. 418–451. https://doi.org/10.1007/s10843-015-0160-x

Jyoti, J., and Kour, S., 2017. Factors affecting cultural intelligence and its impact on job performance: Role of cross-cultural adjustment, experience and perceived social support. *Personnel Review*, 46(4), pp. 767–791. https://doi.org/10.1108/PR-12-2015-0313

Karroubi, M., Hadinejad, A., and Mahmoudzadeh, S. M., 2014. A study on relationship between cultural intelligence and cross-cultural adjustment in tour management. *Management Science Letters*, 4(6), pp. 1233–1244. https://doi.org/10.5267/j.msl.2014.4.021

Kontinen, T., and Ojala, A., 2012. Internationalization pathways among family-owned SMEs. *International Marketing Review*, 29(5), pp. 496–518. https://doi.org/10.1108/02651331211260359

Kuivalainen, O., Sundqvist, S., Saarenketo, S., and McNaughton, R., 2012. Internationalization patterns of small and medium-sized enterprises.*International Marketing Review*, 29(5), pp. 448–465. https://doi.org/10.1108/02651331211260331

Law, K.S., Wong, C.-S., Huang, G.-H., and Li, X., 2008. The effects of emotional intelligence on job performance and life satisfaction for the research and development scientists in China. *Asia Pacific Journal of Management*, 25(1), pp. 51–69. https://doi.org/10.1007/s10490-007-9062-3

Law, K. S., Wong, C.-S., and Song, L. J., 2004. The construct and criterion validity of emotional intelligence and its potential utility for management studies. *Journal of Applied Psychology*, 89(3), pp. 483–496. https://doi.org/10.1037/0021-9010.89.3.483

Leonidou, L. C., Aykol, B., Fotiadis, T. A., Zeriti, A., and Christodoulides, P., 2019. The role of exporters' emotional intelligence in building foreign customer relationships. *Journal of International Marketing*,27(4), pp. 58–80. https://doi.org/10.1177/1069031X19876642

Lillis, M. P., and Tian, R. G., 2009. Cross-cultural communication and emotional intelligence: inferences from case studies of gender diverse groups. *Marketing Intelligence & Planning*, 27 (3), pp. 428–438. https://doi.org/10.1108/02634500910955272

Lin, W.-T., and Liu, Y., 2012. Successor characteristics, organisational slack, and change in the degree of firm internationalisation. *International Business Review*, 21(1), pp. 89–101. https://doi.org/10.1016/j.ibusrev.2011.01.001

Lin, Y., Chen, A. S., and Song, Y., 2012. Does your intelligence help to survive in a foreign jungle? The effects of cultural intelligence and emotional intelligence on cross-cultural adjustment. *International Journal of Intercultural Relations*, 36(4), pp. 541–552. https://doi.org/10.1016/j.ijintrel.2012.03.001

Loo, R., and Thorpe, K., 2000. Confirmatory factor analyses of the full and short versions of the Marlowe-Crowne social desirability scale. *The Journal of Social Psychology*,140(5), pp. 628–635. https://doi.org/10.1080/00224540009600503

Makkar, S., and Singh, A. K., 2018. Development of a spirituality measurement scale. *Current Psychology,* pp. 1-8. https://doi.org/10.1007/s12144-018-0081-7

Malhotra, N. K., 2010. *Marketing research: An apllied orientation*. 6th ed. New Jersey: Pearson Education, Inc.

Matthews, G., Zeidner, M., and Roberts, R. D., 2012. Emotional intelligence: A promise unfulfilled? *Japanese Psychological Research*, 54(2), pp. 105–127. https://doi.org/10.1111/j.1468-5884.2011.00502.x

Mayer, J. D., Caruso, D. R., and Salovey, P., 1999. Emotional intelligence meets traditional standards for an intelligence. *Intelligence*, 27(4), pp. 267–298. https://doi.org/10.1016/S0160-2896(99)00016-1

Mayer, J. D., and Salovey, P., 1997. What is emotional intelligence?, In: P., Salovey, and D. J., Sluyter, eds. 1997. *Emotional Development and Emotional Intelligence: Educational Implications*. New York: Harper Collins, pp. 3–34.

Mayer, J. D., Salovey, P., and Caruso, D. R., 2004. Emotional intelligence: theory, findings, and implications. *Psychological Inquiry*, 15(3), pp. 197–215. https://doi.org/10.1207/s15327965pli1503_02

Moon, T., 2010. Emotional intelligence correlates of the four-factor model of cultural intelligence. *Journal of Managerial Psychology*, 25(8), pp. 876–898. https://doi.org/10.1108/02683941011089134

Mulaik, S. A., James, L. R., Van Alstine, J., Bennett, N., Lind, S., and Stilwell, C. D., 1989. Evaluation of goodness-of-fit indices for structural equation models. *Psychological Bulletin*, 105(3), pp. 430–445. https://doi.org/10.1037/0033-2909.105.3.430

Nadhim, E. A., Hon, C., Xia, B., Stewart, I., and Fang, D., 2018. Investigating the relationships between safety climate and safety performance indicators in retrofitting works. *Construction Economics and Building*,18(2), pp. 110–129. https://doi.org/10.5130/AJCEB.v18i2.5994

Naude, P., Zaefarian, G., Tavani, Z. N., Neghabi, S., and Zaefarian, R., 2014. The influence of network effects on SME performance. *Industrial Marketing Management*, 43(4), pp. 630–641. https://doi.org/10.1016/j.indmarman.2014.02.004

Navarro-Garcia, A., 2016. Drivers of export entrepreneurship. *International Business Review*, 25(1,B), pp. 244–254. https://doi.org/10.1016/j.ibusrev.2015.05.007

Nielsen, S., 2010. Top management team internationalization and firm performance: the

mediating role of foreign market entry. *Management International Review*, 50(2), pp. 185–206. https://doi.org/10.1007/s11575-010-0029-0

Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y., and Podsakoff, N. P., 2003. Common method biases in behavioral research: a critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5), pp. 879–903. https://doi.org/10.1037/0021-9010.88.5.879

Ponterotto, J. G., Ruckdeschel, D. E., Joseph, A. C., Tennenbaum, E. A., and Bruno, A., 2011. Multicultural personality dispositions and trait emotional intelligence: an exploratory study. *Journal of Social Psychology*, 151(5), pp. 556–576. https://doi.org/10.1080/00224545.2010.503718

Prange, C., and Pinho, J. C., 2017. How personal and organizational drivers impact on SME international performance: the mediating role of organizational innovation. *International Business Review*, 26(6), pp. 1114–1123. https://doi.org/10.1016/j.ibusrev.2017.04.004

Reynolds, W. M., 1982. Development of reliable and valid short forms of the Marlowe-Crowne social desirability scale. *Journal of Clinical Psychology*, 38(1), pp. 119–125. https://doi.org/10.1002/1097-4679(198201)38:1<119::AID-JCLP2270380118>3.0.CO;2-I

Rockstuhl, T., Seiler, S., Ang, S., Van Dyne, L., and Annen, H., 2011. Beyond general intelligence (IQ) and emotional intelligence (EQ): the role of cultural intelligence (CQ) on cross-border leadership effectiveness in a globalized world. *Journal of Social Issues*, 67(4), pp. 825–840. https://doi.org/10.1111/j.1540-4560.2011.01730.x

Rodrigues, N., Rebelo, T., and Coelho, J.V., 2011. Adaptação da escala de inteligência emocional de Wong e Law (WLEIS) e análise da sua estrutura factorial e fiabilidade num amostra portuguesa [Adaptation of the Wong and Law's emotional intelligence scale (WLEIS) and analysis of its factorial structure and reliability in a Portuguese sample]. *Psychologica,* 55, pp. 189–207.

Salovey, P., and Grewal, D., 2005. The science of emotional intelligence. *Current Directions in Psychological Science*, 14(6), pp. 281–285. https://doi.org/10.1111/j.0963-7214.2005.00381.x

Salovey, P., and Mayer, J. D., 1990. Emotional intelligence. *Imagination, Cognition and Personality*,9(3), pp. 185–211. https://doi.org/10.2190/DUGG-P24E-52WK-6CDG

Santos, A., Wang, W., and Lewis, J., 2018. Emotional intelligence and career decision-making difficulties: the mediating role of career decision self-efficacy. *Journal of Vocational Behavior*, 107, pp. 295–309. https://doi.org/10.1016/j.jvb.2018.05.008

Schueffel, P., Baldegger, R., and Amann, W., 2014. Behavioral patterns in born-again global firms. *Multinational Business Review*, 22(4), pp. 418–441. https://doi.org/10.1108/MBR-06-2014-0029

Serenko, A., and Bontis, N., 2016. Understanding counterproductive knowledge behavior: antecedents and consequences of intra-organizational knowledge hiding. *Journal of Knowledge Management*, 20(6), pp. 1199–1224. https://doi.org/10.1108/JKM-05-2016-0203

Shao, B., Doucet, L., and Caruso, D. R., 2015. Universality versus cultural specificity of three emotion domains: some evidence based on the cascading model of emotional intelligence. *Journal of Cross-Cultural Psychology*, 46(2), pp. 229–251. https://doi.org/10.1177/0022022114557479

Sharma, N., and Hussain, D., 2017. Current status and future directions for cultural intelligence. *Journal of Intercultural Communication Research*, 46(1), pp. 96–110. https://doi.org/10.1080/17475759.2016.1264444

Sousa, C., Gonçalves, G., Reis, M., and Santos, J. V. dos, 2015. Evidências métricas da adaptação da escala de inteligência cultural numa amostra portuguesa. *Psicologia: Reflexão e Crítica*, 28(2), pp. 232–241. https://doi.org/10.1590/1678-7153.201528203

Sternberg, R. J., 1985. Conceptions of intelligence, In: R. J., Sternberg, ed., 1985. *Beyond IQ: A triarchic theory of human intelligence*. New York: Cambridge University Press. pp. 3–39.

Sternberg, R. J., 1986. A framework for understanding conceptions of intelligence, In: R. J., Sternberg, D. K., Detterman, eds., 1986. *What is intelligence? Contemporary viewpoints*

on its nature and definition. New Jersey: Ablex Publishing Corporation. pp. 3–15.

Sternberg, R. J., 1997. The concept of intelligence and its role in lifelong learning and success. *American Psychologist*, 52(10), pp. 1030–1037. https://doi.org/10.1037/0003-066X.52.10.1030

Thompson, E. R., and Phua, F. T. T., 2005. Reliability among senior managers of the Marlowe–Crowne short-form social desirability scale. *Journal of Business and Psychology*, 19(4), pp. 541–554. https://doi.org/10.1007/s10869-005-4524-4

Triki, A., Cook, G. L., and Bay, D., 2017. Machiavellianism, moral orientation, social desirability response bias, and anti-intellectualism: a profile of Canadian accountants. *Journal of Business Ethics*,144(3), pp. 623–635. https://doi.org/10.1007/s10551-015-2826-7

Uy, M. A., Foo, M.-D., and Ilies, R., 2015. Perceived progress variability and entrepreneurial effort intensity: the moderating role of venture goal commitment. *Journal of Business Venturing*, 30(3), pp. 375–389. https://doi.org/10.1016/j.jbusvent.2014.02.001

Vaccarini, K., Pojaghi, B., and Yan, S., 2019. A psychological perspective on the role of culture in sinoeuropean fdi contexts - managers' perception of cultural difference and its impact on international business. *Eurasian Journal of Business and Management*, 7(3), pp. 1–14. https://doi.org/10.15604/ejbm.2019.07.03.001

Van Dyne, L., Ang, S., Ng, K. Y., Rockstuhl, T., Tan, M. L., and Koh, C., 2012. Sub-dimensions of the four factor model of cultural intelligence: expanding the conceptualization and measurement of cultural intelligence. *Social and Personality Psychology Compass*, 6(4), pp. 295–313. https://doi.org/10.1111/j.1751-9004.2012.00429.x

Wong, C.-S., and Law, K. S., 2002. The effects of leader and follower emotional intelligence on performance and attitude: an exploratory study. *The Leadership Quarterly*, 13(3), pp. 243–274. https://doi.org/10.1016/S1048-9843(02)00099-1

Yoo, S. H., Matsumoto, D., and LeRoux, J. A., 2006. The influence of emotion recognition and emotion regulation on intercultural adjustment. *International Journal of Intercultural Relations*, 30(3), pp. 345–363. https://doi.org/10.1016/j.ijintrel.2005.08.006

Zucchella, A., Palamara, G., and Denicolai, S., 2007. The drivers of the early internationalization of the firm. *Journal of World Business*, 42(3), pp. 268–280. https://doi.org/10.1016/j.jwb.2007.04.008