

CULTURAL INTELLIGENCE AMONG AMERICAN HOSPITALITY STUDENTS: AN
EXAMINATION OF ANTECEDENT AND OUTCOME VARIABLES

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Table of Contents

Abstract	4 - 5
Introduction	5 - 8
Literature Review	8 - 18
Emotional Intelligence	
Cultural Intelligence	
Relationship between EI and CQ	
Intercultural Communication Apprehension	
Relationship between CQ and ICA	
Methodology	18 - 20
Sample and Data Collection	
Measurement	
Data Analysis	
Results	20 - 25
Characteristics of the Sample	
Descriptive Statistics	
Confirmatory Factor Analysis	
Hypothesis Tests	

Discussion	26 - 29
Summary of Research	
Result 1 (EI – CQ)	
Result 2 (CQ – ICA)	
Theoretical Contributions	
Implications	29 - 34
Hospitality Industry Practitioners	
Higher Education of Hospitality	
Limitations and Suggestions for Future Research	34 - 36
References	37 - 46

Abstract

The diversification of workforces and globalization of businesses have created a demand for qualified global managers who can effectively navigate cross-cultural encounters with employees and customers from different backgrounds. Cultural intelligence (CQ) refers to an individual's ability to detect, assimilate, reason, and act using cultural cues appropriately (Earley & Ang, 2003). Despite previous research on CQ, few studies have been conducted in both a university and hospitality setting. Particularly, there is relatively little research on antecedents and outcomes of CQ among American hospitality students. This study examines and explores how CQ is related to emotional intelligence (EI) and intercultural communication apprehension (ICA). EI is an individual's ability to recognize and understand emotions in both oneself and others, and effectively use this emotional information (Crowne, 2012). ICA is defined as the fear, anxiety, or lack of motivation associated with either real or anticipated interaction with people from different groups (Neuliep & McCroskery, 1997).

According to previous research, individuals with high CQ possess strong emotional display, management, and regulation (Moon, 2010). Also, individuals who recognize and understand others' cultural preferences or norms tend to uphold cultural respect, reduce personal anxiety, and effectively communicate in intercultural conversations (Alon & Higgins, 2005). Based on previous research, this study hypothesized (1) EI positively affects student CQ while (2) CQ negatively affects ICA. Data were collected through quantitative surveys completed by 370 students majoring in hospitality management throughout the United States. Hierarchical regression analysis showed significant relationships between these concepts, supporting the proposed hypotheses. Students who have increased levels of EI, allowing them to manage, adapt, and regulate their emotions in varying situations, typically also have high levels of CQ, allowing them

to effectively understand and communicate with individuals from different cultures. Also, students with high levels of CQ are far less likely to have ICA, diagnosed by fear and anxiety in multicultural situations. This study is a part of a continuously growing body of research focused on the globalization of the hospitality industry and the increased importance of cultural awareness, sensitivity, and communication capabilities.

Introduction

The hospitality industry is constantly shifting and changing, growing exponentially to become one of the largest and most profitable industries in the world. This includes continued evolution of the various services offered (lodging, events, food and beverage, etc.), and the eclectic expanse of individuals served. Therefore, both the depth and width of this industry are significantly and consistently expanding. While hospitality does encompass many various roles, products, and services in several industry sectors, each sector is focused on people. With the significant growth in this market, hospitality has expanded into a global network, where industry members must be able to handle multicultural and diverse situations with respect, understanding, and intentionality. This is not only a key managerial competency, but also the ‘key to success’ in providing excellent customer service and guest satisfaction in today’s globalized and diversified business environment (Arora & Rohmetra, 2010). Therefore, it is greatly necessary for hospitality students to enter the field with a foundational appreciation of other cultures, and a general understanding of how to navigate culturally diverse situations in their field of study and career of choice. In this regard, the topic of cultural intelligence (CQ) and the concepts, such as EI, that impact its presence in individuals have become a subject of growing research attention in the management disciplines.

The ability to adapt in intercultural situations and handle oneself in a genuine, respectful manner during intercultural communication represent strong attributes required of leaders within the hospitality industry. “Through open and sincere intercultural communication, people regardless of group or cultural orientation, can work together to achieve great things” (Tien & David, 2011). Diversity is now seen as a great advantage, and the need to communicate with people of different cultures and backgrounds has become “cardinal for ensuring success” (Arora & Rohmetra, 2010). “The capability to interact effectively with people from different cultures is increasingly required to resolve the problem that arise from complex international working environments” (Moon, 2010). Therefore, ICA must be given attention within business environments, in order for it to be decreased and cultural awareness and communication to be upheld to the adequate degree.

Although previous literature on cultural competence has hinted at the importance of CQ in reducing ICA, so far, little research has examined the direct impacts of CQ on ICA in detail. However, the rationale for the functional role of CQ on ICA is well founded in previous communication research. For example, according to Berger and Calabrese (1975), the primary way people reduce uncertainty during initial interaction is via verbal and nonverbal communication strategies. To the extent that people can reduce uncertainty and anxiety during communication, they can increase their communication effectiveness. Therefore, given that cognitive CQ indicates knowledge of cultural universals as well as knowledge of cultural differences, those with high cognitive CQ may reduce uncertainty and anxiety during communication with people from different culture, and accordingly avoid ICA. Additionally, a study by Monthienvichienchai, Bhibulbhanuwat, Kasemsuk, and Speece (2002) also supports the link between CQ and ICA. This study confirmed that increasing an individual’s cultural

awareness (a large component of CQ) directly reduces ICA. Also, studies have confirmed that cultural knowledge (an additional component of CQ) consistently plays an important role in influencing effective communication across cultures, in turn reducing ICA (Gudykunst & Kim, 1984; Samovar & Porter, 1985). These studies support the link between these two constructs. This research will explore the connections between these concepts more deeply to either confirm or deny these relationships.

Despite a proliferation of research, very few studies have been conducted on the cultural intelligence of hospitality students within their collegiate environments. Additionally, previous studies have not examined the predicting role of EI on CQ and CQ on ICA. These are very important areas of research, as college students represent the future global leaders of this industry that is only continuing to expand and globalize. Research confirms the importance and need for hospitality industry members to have the capability to interact effectively with people from different cultures in order to resolve problems that arise from complex international working environments (Moon, 2010). In order to continue the growth and successful expansion of hospitality, higher education must teach and provide to students the knowledge and experience necessary for them to enter the field as fully equipped as possible. This study will begin filling this gap in research, to ensure that collegiate curriculums within higher education will increase awareness, knowledge, and appreciation of cultural intelligence among their students; and in doing so, will also increase their ability to best succeed in the industry.

Therefore, this research study will examine the relationships between EI, CQ, and ICA in hospitality management students in various collegiate programs throughout the United States. This study will empirically test a theoretical relationship model between the previously listed factors in order to prove a positive correlation between EI and CQ and a proposed negative

correlation between CQ and ICA. The purposes of the study are to examine the direct impacts of EI on CQ levels and CQ on ICA tendencies of hospitality students.

The ultimate purposes of this research project is to provide valuable information and insight to higher education, industry practitioners, and researchers within the American hospitality industry. This study will therefore benefit the educational, practical, and research sectors of the industry. For the higher education sector, this study will provide insight and information for creating new curriculum and program content; establishing institutional standards, objectives, directions, and various teaching methods that best supplement; designing other extra-curricular activities and clubs, and developing strategies that evaluate and measure the success of the program. For the practical sector, this study will give greater insight and information into necessary competencies and capabilities within the industry; and what management strategies, disciplines, and expectations can be implemented to increase levels of these competencies among practitioners. For the hospitality researchers and scholars, this study will add current, relevant literature on the topic of CQ through providing empirical data and quantitative and qualitative analyses on this silent area of research. It will also provide a basis of research and information to which scholars can further add and explore, to create new perspectives, standards, and solutions for customer service, human resources, and guest relations in this globalized economy.

Literature Review

Emotional Intelligence

Emotional Intelligence (EI) is an increasingly popular term and topic that has an extensive base of definitions and theories attached to it. Previous to the separate category of EI was the overarching theory of social intelligence, originally based on the Structure of Intellect

Model constructed by Guilford in 1967 (Weis, 2007, p. 19). This theory of social intelligence includes cognition, convergent and divergent production, memory retention, memory recording, and evaluation of behavioral contents (Pal, Pal, & Tourani, 2004). The contents of this theory consist of, “Nonverbal information about social interactions that allow conclusions about thoughts, desires, feelings, moods, emotions, intentions, and actions of other persons and of ourselves” (Weis, 2007, p. 20). Following the evolution of social intelligence, many related constructs have appeared, with one of the most prominent being the theory of emotional intelligence. EI was initially established as a subset of social intelligence (Salovey & Mayer, 1990), but has grown to become an independent construct.

As stated previously, EI has a wide range of definitions, descriptions, and components. The original definition constructed by Salovey and Mayer (1990), the creators and initial researchers of this theory, is, “the subset of social intelligence that involves the ability to monitor one’s own and others’ feelings and emotions, to discriminate among them and to use this information to guide one’s thinking and actions” (p. 189). Mayer and Geher (1996) included the components of recognition of emotion, reasoning with emotions and emotion-related information, and processing emotional information within the original definition of EI. Romanelli, Cain, and Smith (2006) define EI as, “the set of skills people use to read, understand, and react effectively to emotional signals sent by others and oneself” (p. 2). This set of skills includes empathy, problem-solving, optimism, and self-awareness, which allow people to process, understand, and respond to environmental and cultural situations (Romanelli *et al.*, 2006).

The expansive definition of this term only continues to grow and change. A more recent description of EI has defined the term as, “The ability to perceive and express emotion accurately

and adaptively, the ability to understand emotion and emotional knowledge, the ability to use feelings to facilitate thought, and the ability to regulate emotions in oneself and in others” (Salovey & Pizarro, 2003, p. 263). While there are minor differences in the array of definitions for EI, they all focus on similar concepts: recognition, understanding of emotions in both oneself and others, and the ability to effectively use this emotional information in thought processes responses (Crowne, 2012).

Emotionally intelligent individuals can effectively perceive their emotions and efficiently regulate them in situations and conditions when doing so is necessary and required. These individuals also have a greater ability to solve problems adaptively, and are more prone to integrating emotional considerations into their decision-making process among alternatives of solutions (Mayer & Salovey, 1990). Additionally, research has confirmed that emotional intelligence is positively correlated to individual’s cognitive capability and performance. Emotional intelligence, including the perception and regulation of emotions, contribute positively to individual cognitive performance (Lam & Kirby, 2002). Those with high EI have buffering techniques that allow them to segregate and regulate emotions in order to prevent their interference with task performance (Lam & Kirby, 2002). Lastly, these individuals also have a more developed ability to control their own emotions and those of others, decreasing the presence and power of fear, negative emotions, and anxiety to have negative impacts on their task or team performance (Seipp, 1991). Individuals with strong problem-solving skills, well-developed emotional statures and regulation tactics, and significant abilities to adapt in changing situations make for wonderful candidates in the hospitality industry. Therefore, continued research on this topic is both relevant and necessary.

Cultural Intelligence

Another construct of intelligence that has received significant attention in both academic and practical settings is cultural intelligence (CQ), which reflects individuals' ability to adapt in varying cultural contexts (Earley & Ang, 2003, p. 196). This concept was developed by Earley and Ang in 2003 in response to the gap of understanding of why certain individuals were more adaptable and effective than others in culturally diverse settings (Ang, Van Dyne, Koh, Ng, Templer, Tay, & Chandrasekar, 2007). These authors defined CQ as, "A person's capability for successful adaptation to new cultural settings, that is, for unfamiliar settings attributable to cultural context" (Earley & Ang, 2003, p. 9). Other studies refer to CQ as an individual's capability to detect, assimilate, reason, and act on cultural cues appropriately in situations characterized by cultural diversity (Van Dyne, Ang, Ng, Rockstuhl, Tan, & Koh, 2012). CQ consists of specific knowledge about various cultures and general knowledge about how said cultures function (Arora & Rohmetra, 2010). It entails people's capacity to understand culturally diverse situations, as well as maintain control over individual thought processes within these situations.

CQ is a multidimensional construct, which includes the following four components: (1) metacognitive CQ, (2) cognitive CQ, (3) motivational CQ, and (4) behavioral CQ (Earley & Ang, 2003). Metacognitive CQ is the process individuals use to attain and understand specific cultural knowledge (Keung & Rockinson-Szapkiw, 2013). The authors defined cognitive CQ as the ability to function and operate within a new culture, as well as understanding specific cultural knowledge, such as language, relational habits, and cultural tendencies (Earley & Ang, 2003). Thus, cognitive CQ consists of the knowledge and understanding of various cultures. They define motivational CQ as the desire to engage with others in a new cultural setting (Earley & Ang, 2003). One cannot solely have the knowledge or skills to adjust to a cultural setting, they

must also have motivation to do so in order for adaptation to occur. Behavioral CQ is defined as the active adaptation to a cultural circumstance – not merely an individual's thoughts, intentions, or wishes to adapt (Earley & Ang, 2003).

Individuals with high CQ are consciously aware of the cultural preferences and norms of others; and understand the similarities and differences of those of other cultures and nationalities. CQ enables individuals to comprehend diversity in a more comprehensive manner, and interact in a culturally sensitive manner which contributes to effective leadership in multicultural business environments (Alon & Higgins, 2005; Ang & Inkpen, 2008). Research has shown there to be a significant relationship between CQ and transformational leadership in international leaders (Keung & Rockinson-Szapkiw, 2013). As the hospitality industry continues to expand globally, the capability to interact effectively with people from varying cultural backgrounds is increasingly required to resolve issues that arise from complex international working scenarios (Moon, 2010). While numerous managerial competencies are required for successful leadership, dealing effectively with people from varied cultural backgrounds with CQ is key (Arora & Rohmetra, 2010). Therefore, CQ is very meaningful for today's business world, with the constant globalization of the industry. As a result, a significant amount of research about the globalization of the industry, multi-cultural dynamic of hospitality, and the managerial and employee-based responses to the industry globalizing does currently exist.

Relationship between Emotional Intelligence and Cultural Intelligence

Previous research has discovered prominent connections between EI and CQ, confirming a potential positive correlation between the two factors. Cross-cultural interactions expose individuals to challenging and unfamiliar emotional experiences, derived from general emotions to difference and strangeness (Pinderhughes, 1989). Interactions involving individuals from

varying cultural backgrounds also include additional differences, such as skin color, religion, race, physical appearance, and language. This large cultural gap between individuals within these interactions can create and intensify the ‘strangeness’, and produce uncomfortable emotional responses, including fear, anxiety, unfamiliarity, defensiveness, or discomfort (Bochner, 1982). Since cross-cultural interactions can create many unfamiliar and uncomfortable emotional responses, it is crucial that individuals entering these situations understand, adapt, and regulate their emotions effectively, thus requiring them to have high EI.

Previous studies also suggest that many emotional factors positively influence cross-cultural adaptation (Cui & Awa, 1992; Tang, 2001; Earley, 2002; Kim, 1986). Social-emotional processes are shown to play a dominant role in effective cross-cultural adaptation, with the most influential factors being empathy, flexibility, patience, tolerance for ambiguity, and the ability to create and maintain relationships with individuals from different cultural backgrounds (Cui & Awa, 1992). Cultural awareness, empathy, and sensitivity remain crucial psychological predispositions for effective cross-cultural interactions (Kim, 1986; Tang, 2001). Additionally, the lack of this empathy creates a large barrier to effective cross-cultural adaptation and adjustment (Tang, 2001). Many individuals who possess a strong superiority of emotional display and management show high levels of CQ, confirming a positive relationship between the constructs (Earley, Ang, & Tan, 2006).

Findings of previous empirical studies (e.g., Crowne, 2009; Earley & Ang, 2003; Earley et al., 2006; Moon, 2010) indicate the positive relationship between EI and CQ. For example, in his recent study of undergraduate and graduate students, Moon (2010) conceptualizes the relationship between CQ and EI on several bases. First, these constructs are connected because they both concern a set of capabilities, rather than preferred ways of behaving (Moon, 2010;

Earley & Ang, 2003; Earley et al., 2006). Additionally, CQ and EI are related considering individuals with high CQ also possess strong emotional display, management, and regulation, which infers high EI (Moon, 2010; Earley et al., 2006). Lastly, individuals with high CQ effectively manage, regulate, and adapt their emotional responses in cross-cultural interactions (Moon, 2010; Earley & Ang, 2003; Earley et al., 2006). Therefore, previous studies provide empirical evidence that a relationship exists between CQ and EI in a general concept (Moon, 2010). Additionally, cross-cultural interactions require adaptability in emotional expression to adjust to the appropriate response of each context. This adaptation is the skill of a highly emotionally intelligent individual, which supports the relationship between these two constructs as well (Crowne, 2009).

Hypothesis #1: Emotional intelligence is positively related to cultural intelligence.

Intercultural Communication Apprehension

There are various types and patterns of communication that focus on particular categories of interaction. Intercultural communication refers to communication specifically between individuals of different cultures and backgrounds (Tien & David, 2011). Due to the lack of mutual understanding or common characteristics between the different, idiosyncratic cultures, conversations in intercultural situations can be inherently unfamiliar, uncomfortable, or even problematic for certain individuals (Porter & Samovar, 1994). Novel, unfamiliar, or dissimilar circumstances lead to anxiety about communicating within those situations (Neuliep & McCroskey, 1997). As such, intercultural interactions may carry an extensive amount of such uncertainties; thus, people may have anxiety and hesitation attached to intercultural communication (Neuliep & Ryan, 1998). Neuliep and McCroskey (1997) refer to this anxiety and hesitation as intercultural communication apprehension (ICA).

ICA is generally defined as the fear, anxiety, or lack of motivation associated with either real or anticipated interaction with people from different groups, especially different cultural or ethnic groups (Neuliep & McCroskery, 1997). According to Neuliep (2012) and Neuliep and McCroskery (1997), ICA is caused by the inhibited ability to reduce uncertainty, anxiety, and misunderstanding in intercultural conversations. ICA also has a negative impact on individuals' motivation to interact with others from varied cultures, backgrounds, and national origins (Lin & Rancer, 2003). Studies show that ICA is a significant obstacle to cultural adaptation, which is a necessary factor to success in the globalized business industry today (Neuliep, 2012).

As opposed to ICA, intercultural communication competence (ICC) refers to an individual's capacities to be flexible, nonjudgmental, and tolerant of ambiguity, and the capacities to communicate respect, personalize one's knowledge and perceptions, display empathy, and take turns in intercultural situations or events (Ruben, 1976). ICC also refers to cognitive, affective, and behavioral adaptability or capability to suspend or alter conventional cultural ways, acquire and accept new cultures, and creatively handle the dynamics of cultural difference and unfamiliarity, cross-cultural posture, and the accompanying nervousness and tension (Dodd, 1995; Gudykunst, 1986; Kim, 1991; Lustig & Koester, 1999). Therefore, effective intercultural communicators who maintain high ICC are described as those who see people as representatives of varied cultures; believe that people are all basically good; are aware of the values upheld in other cultures and their own; have adequate control and regulation of their visceral reactions; speak with hopefulness and candor; and maintain inner security and comfortability when socializing with people from other cultures (Kleinjans, 1972). Additionally, competent intercultural communicators also have the willingness to approach intercultural situations while maintaining cultural sensitivity, defined as "an individual's ability to develop

emotion towards understanding and appreciating cultural differences that promotes appropriate and effective behavior in intercultural communication” (Chen & Starosta, 1997, p. 5).

Cultural Intelligence and Intercultural Communication Apprehension

Although previous literature on cultural competence has hinted at the importance of CQ in reducing ICA, little research has explored the relationship between CQ and ICA in detail. However, the rationale for the functional role of CQ on ICA is well founded in previous cross-cultural communication research. For example, according to ICC research (e.g., Dodd, 1995; Goffman, 1959; Gudykunst, 1986; Lustig & Koester, 1999; Ruben, 1976), the processes of intercultural communication generally require individuals to have ICC-like cultural awareness, sensitivity, and knowledge, allowing them to understand both themselves and others effectively, as well as the rules and expectations of the varying cultures involved. Therefore, given that CQ includes the concepts of cultural awareness, cultural sensitivity, cultural knowledge, and the willingness and motivation to participate in intercultural situations (Alon & Higgins, 2005; Ang & Inkpen, 2008; Earley & Ang, 2003), it is plausible to argue a positive relationship between CQ and ICC, indicating an inverse relationship between CQ and ICA. If individuals recognize others’ cultural preferences, understand similarities and differences across cultures, and/or know cultural values and norms of others, they are likely to uphold cultural respect and reduce personal anxiety and thus effectively communicate in intercultural conversations.

Similarly, studies also show that those with high ICA, or low ICC, tend to avoid interactions with those of different cultures, and have a significantly decreased motivation to approach intercultural situations (Neuliep, 2012). These individuals struggle to adapt in intercultural circumstances, with a great lack of sensitivity and awareness. On the other hand, those with low ICA have a high degree of communicative competence, and are successful in

interacting with people from different cultures (Tien & David, 2011), because these individuals maintain a high level of sensitivity and awareness in intercultural situations (Tien & David, 2011). These associations may commonly lead to the inference that CQ plays a significant role in predicting ICA. Consistent with this argument, Dodd's (1995) study suggested that competent intercultural communicators (i.e., high ICC) are willing to approach intercultural situations and are sensitive to the differences in them. Since effective intercultural communication requires cognitive, affective, and behavioral adaptations that can be especially challenging for individuals who have little experience interacting with people from different ethnic groups (Dodd, 1995), individuals with high levels of CQ may have low ICA (Dodd, 1995). Likewise, a study by Monthienvichienchai et al., (2002) also confirmed that increasing an individual's cultural awareness (a large component of CQ) directly reduces ICA. Furthermore, studies by Gudykunst and Kim (1984) and Samovar and Porter (1985) have confirmed that cultural knowledge (an additional component of CQ) consistently plays an important role in influencing effective communication across cultures, in turn reducing ICA. These studies support the link between these two constructs.

Additionally, according to Berger and Calabrese (1975), the primary way people reduce uncertainty during initial interaction is via verbal and nonverbal communication strategies. To the extent that people can reduce uncertainty and anxiety during communication, they can increase their communication effectiveness. Therefore, given that cognitive CQ indicates knowledge of cultural universals and knowledge of cultural differences, those with high cognitive CQ may reduce uncertainty and anxiety during communication with people from different cultures, and accordingly avoid ICA. Therefore, we propose the following hypothesis:

Hypothesis #2: Cultural intelligence is negatively related to intercultural communication apprehension.

Based on the theoretical background, two theoretical hypotheses were derived, and a conceptual model was developed integrating the hypotheses (Figure 1).



Figure1. Proposed Conceptual Model

Methodology

Sample and Data Collection

The population of this study is American college students enrolled in four-year hospitality programs in the United States. The sample used in this study consisted of 370 American students who were majoring in lodging management, food and beverage management, convention and event management, and tourism in 14 undergraduate programs in public universities in the U.S. For equal distribution of the sample, we selected the programs from the sampling frame categorized by the location, campus setting (i.e., urban vs. rural), and program size (i.e., department, school, vs. college). An invitation email was sent to faculty members of the selected hospitality programs to request participation in this study. Fourteen faculty members who agreed to participate forwarded the invitation email to their students along with the instructions for the survey and the URL of the survey site. A total of 434 responses were collected; in the end, 44 responses by international or non-hospitality students, 16 incomplete responses, and four outliers were eliminated and 370 responses were used for analysis.

Measurement

Various measures validated in previous studies were adopted. All constructs were measured on 7-point Likert-type scales ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). CQ was measured with the nine-item short version cultural intelligence scale (Mini-CQS) developed by Ang and Van Dyne (2008). Mini-CQS assesses the overall of CQ on the four dimensions: metacognitive CQ (e.g., “I check the accuracy of my cultural knowledge as I interact with people from different cultures”); cognitive CQ (e.g., “I know the rules of other language”); motivational CQ (e.g., “I enjoy interacting with people from different cultures”); and behavioral CQ (e.g., “I change my verbal behavior when a cross-cultural interaction requires it”). Used most widely, Mini-CQS has gone through an extensive validation process, and research demonstrated that it (1) is reliable and predicts a variety of criterion outcomes and (2) is generalizable across multiple student samples (Van Dyne, Ang, & Koh, 2008). Internal reliability of the Mini-CQS, as measured by Cronbach’s Alpha, is strong in previous research, exceeding the standard cut-off of .70 (Kim, Kirkman, & Chen, 2008; Tarique & Takeuchi, 2008; Van Dyne et al. 2008). Cronbach’s alpha for this scale was .90 in this study.

EI was measured using the Wong and Law Emotional Intelligence Scale (WLEIS) (Wong & Law, 2002). This 16-item scale assessed four components of EI that Mayer and Salovey (1997) conceptualized: self-emotion appraisal, other-emotion appraisal, use of emotion, and regulation of emotion. Examples of the items include “I have a good sense of why I have certain feelings most of the time” and “I am a good observer of others’ emotions.” Internal reliability of this scale was validated in previous research (Lee & Ok, 2012). In this study, Cronbach’s alpha for this scale was .93.

ICA was measured by Neuliep and McCrisken's (1997) 7-item Personal Report of Intercultural Communication Apprehension (PRICA). Example items include "I am afraid to speak up in conversations with a person from a different country or culture" and "Communicating with people from different countries or cultures makes me feel uncomfortable." The value of Cronbach's alpha was .91 in Neuliep and Ryan's (1998) study, showing a high internal consistency level. In this study, Cronbach's alpha for this measure was .93.

Data Analysis

All variables were examined for accuracy of data entry, missing values, and outliers. The hypothesized relationship model was tested and analyzed via regression analysis. Hierarchical regression analysis was used because this method evaluates the relationship between an independent variable and the dependent variable, controlling for the impact of control variables (Howitt & Cramer, 2008). In previous research (e.g., MacNab, 2012; Ng & Earley, 2006; Shannon & Begley, 2008; Triandis, 2008), demographic characteristics like gender, age, race, industry experience, school year, and GPA and intercultural experiences like previous international travel experiences and online/offline intercultural social contact had significant effects on CQ. Therefore, to ensure that the relationships between variables were not confounded, these variables were included as covariates in testing the hypothesized relationships. To test the proposed direct relationships and their strength between EI and CQ and between CQ and ICA, coefficient of determination (R^2), regression coefficients (β), and t-values of each relationship were examined at the .05 level. Analysis was performed using SPSS version 24.

Results

Characteristics of the Sample

Of the 370 respondents in the sample, 76.8% were female ($n = 284$), and 23.2% were male ($n = 86$). Approximately 63% of the respondents ($n = 233$) were within the range of 20 to 22 years old, and 13.2% ($n = 49$) were within the range of 23 to 25 years old. In terms of the school year, 37.6% were juniors ($n = 139$), and 31.9% of the respondents ($n = 118$) were seniors. Of the respondents, 32.2% ($n = 119$) were majoring convention/event planning management; while 23.5% were concentrating hotel/lodging management ($n = 87$) and 14.3% were food and beverage management ($n = 53$). 48.2% of the respondents ($n = 178$) had worked in the hospitality industry for at least 2 years while 13.8% ($n = 51$) had no work experience. 131 respondents (35.4%) answered their GPAs were in the range of 3.0 and 3.4, followed by 113 respondents between 2.5 and 2.9 (30.5%) and 80 respondents in the range of 3.5 and 4.0 (21.6%). Of the respondents, 71.9% were Caucasians ($n = 266$), 13.0% were Asians ($n = 48$), 7.6% were Hispanic ($n = 28$), and 4.9% were African-American ($n = 18$). More than half of the respondents ($n = 204$, 55.0%) were attending hospitality programs in college towns while 131 and 35 respondents were attending programs in suburban (35.5%) and urban areas (9.5%), respectively. The demographic characteristics of the sample is presented in Table 1.

Table 1. Characteristics of the Sample

Category	n	%
Gender		
Female	284	76.8
Male	86	23.2
Age		
Younger than 20	64	17.3
20-22	233	63.0
23-25	49	13.2
26-28	7	1.9
29 or older	17	4.6
Race		
African American	18	4.9

American Indian / Alaskan native	1	0.3
Asian	48	13.0
Caucasian	266	71.9
Hispanic/Latino	28	7.6
Other	9	2.4
School year		
Freshman	24	6.5
Sophomore	89	24.1
Junior	139	37.6
Senior	118	31.9
Major		
General hospitality management	67	18.1
Lodging management	87	23.5
Food & beverage management	53	14.3
Convention and event planning	119	32.2
Culinary arts	6	1.6
Tourism	12	3.2
Other	26	7.0
Work experience		
No work experience	51	13.8
Less than 6 months	46	12.4
6 months – less than 1 year	39	10.5
1 year – less than 2 years	56	15.1
2 years – less than 3 years	52	14.1
3 years or more	126	34.1
GPA		
.50 – 1.99	4	1.1
2.00 – 2.49	42	11.4
2.50 – 2.99	113	30.5
3.00 – 3.49	131	35.4
3.50 – 4.00	80	21.6

Descriptive Statistics

Table 2 reports the means, standard deviations, and correlations among the research variables used in the hypothesis testing along with the reliability for the measurements used in this study. Coefficient alpha for the EI, CQ, and ICA constructs were .93, .90, and .93 respectively, indicating good reliability for the multi-item constructs (Nunnally, 1978).

Table 2. Descriptive Statistics, Reliabilities, and Correlations of Independent and Dependent Variables

Variable	M	SD	1	2	3
EI	5.96	.72	(.93)		
CQ	5.09	.97	.35**	(.90)	
ICA	2.79	.97	-.08*	-.10**	(.93)

Cronbach's alphas are reported in the parenthesis.

* $p < .05$, ** $p < .01$

Confirmatory Factor Analysis

Before hypothesis tests, we also conducted CFA for a more rigorous psychometric assessment of the Mini-CQ measurement. The nine-item, a single-factor model used in this study was evaluated to compare to an alternate four-factor model as CQ was originally conceptualized as a four-dimensional construct consisting of metacognitive, cognitive, motivational, and behavioral CQ (Ang & Van Dyne, 2008). Alternative nested model comparison showed that there was no superiority between the two models as the $\Delta\chi^2$ statistics of the alternative model show no substantial differences with the hypothesized model ($\Delta\chi^2 = .4 < \chi^2_{.05(1)} = 3.84$, $df = 1$). With no distinctiveness in superiority between the two models, the results of CFA provides support for the hypothesized single-factor model of CQ as good fit of the data was demonstrated to the model: χ^2 (20 df) = 32.75, good-of-fit (GFI) = .99, non-normed fit index (NNFI) = .99, comparative fit index (CFI) = .99, standardized root mean square residual (SRMR) = .03, and root mean square error of approximation (RMSEA) = .03. All factor loadings were significant.

Hypothesis Tests

Using SPSS 24, two sets of a three-step hierarchical regression analysis was performed to test hypotheses. To examine unique effects of EI on CQ, CQ was regressed on demographic factors in the first step, previous intercultural experiences in the second step 2, and EI in the last step. Also, to examine unique effects of CQ on ICA, ICA was regressed on demographic factors (step 1), previous intercultural experiences (step 2), and CQ (step 3). Table 3-1 and 3-2 shows the results of these hierarchical regression analyses and coefficient of determination (R^2) for the full regression model for the study.

Table 3-1. Results of Hierarchical Regression Analysis (EI – CQ)

Variable	Model 1			Model 2			Model 3		
	<i>B</i>	<i>SE</i>	β	<i>B</i>	<i>SE</i>	β	<i>B</i>	<i>SE</i>	β
Gender	-.23	.08	-.01**	-.16	.07	-.07*	-.19	.07	-.08**
Age	.06	.04	.05	.04	.04	.04	.03	.04	.03
School year	.00	.04	.00	-.06	.04	-.05	-.04	.04	-.03
Work experience	-.01	.02	-.03	-.02	.02	-.04	-.04	.02	-.08*
GPA	.01	.03	-.01	-.01	.03	-.01	-.02	.03	-.02
International travel (Frequency)				.00	.02	.00	.05	.02	.01
Number of foreign country visited				.05	.02	.09*	.05	.02	.09*
Length of stay in foreign countries				.06	.02	.08*	.04	.02	.07*
Intercultural social interaction (Frequency)				.05	.04	.06	.17	.04	.05
Intercultural social interaction (Intensiveness)				.22	.04	.24***	.10	.03	.19***
Cross-cultural academic training				.11	.03	.13***	-.02	.03	.12***
EI							.04	.04	.30***
R^2		.02			.16			.25	
ΔR^2		.02			.15			.08	
ΔF		2.27*			27.35***			99.47***	

* $p < .05$ ** $p < .01$ *** $p < .001$

Results of hierarchical regression in Table 3-1 showed that only gender was significant in model 1 ($\beta = -.01, p < .05$). In model 2, number of foreign country visited ($\beta = .09, p < .05$), length of stay in foreign countries ($\beta = .08, p < .05$), intensiveness of intercultural social interaction ($\beta = .24, p < .001$), and cross-cultural training ($\beta = .13, p < .001$) significantly explained unique variance of 16% in CQ when demographic variables were controlled for. In model 3, EI significantly contributed to predicting CQ ($\beta = .30, p < .001$) when all the control variables were controlled for, thereby confirming Hypothesis 1. The hierarchical regression analyses also revealed that the main effects of the independent variables explained 25% of the variance on CQ. The R^2 change associated with the EI (from model 2 to model 3) was .08. In other words, adding the EI factor explained an additional 8% of the variances in CQ. Thus, the higher hospitality students' EI levels, the higher their CQ.

Table 3-2. Results of Hierarchical Regression Analysis (CQ – ICA)

Variable	Model 1			Model 2			Model 3		
	<i>B</i>	<i>SE</i>	β	<i>B</i>	<i>SE</i>	β	<i>B</i>	<i>SE</i>	β
Gender	.12	.01	.03	.01	.01	.03	.01	.01	.02
Age	-.01	.05	-.05	-.01	.01	-.05	-.01	.01	-.05
School year	-.01	.01	-.04	.00	.01	.00	.00	.01	-.01
Work experience	-.00	.00	-.01	.00	.00	.00	.00	.00	.00
GPA	-.01	.01	-.08*	-.01	.01	-.06*	-.01	.01	-.07*
International travel (Frequency)				-.01	.00	-.05	-.01	.00	-.05
Number of foreign country visited				.00	.00	.01	.00	.00	.02
Length of stay in foreign countries				.01	.00	.07	.01	.00	-.08*
Intercultural social interaction (Frequency)				-.01	.01	-.08	-.01	.01	-.07
Intercultural social interaction (Intensiveness)				-.01	.01	-.04	-.00	.01	-.02
Cross-cultural academic training				-.02	.01	-.13***	-.02	.01	-.11**
CQ							-.02	.01	-.11**
R^2		.02			.05			.06	
ΔR^2		.02			.03			.01	
ΔF		2.90**			5.57***			10.09**	

* $p < .05$ ** $p < .01$ *** $p < .001$

The hierarchical regression analyses in Table 3-2 revealed that only GPA was significant ($\beta = -.08, p < .05$) in model 1, although other demographic variables did not significantly explained variance in ICA. In model 2, a set of intercultural experiences was entered, but only cross-cultural academic training ($\beta = -.13, p < .001$) was significant in explaining additional variance ($\Delta R^2 = .03$) in ICA. Finally, CQ, added in model 3, significantly related to ICA ($R^2 = .06, \beta = -.11, p < .01$) beyond the variance accounted for by the demographic and previous/current intercultural experience variables. Hypothesis 2 is therefore supported, indicating that higher CQ of students resulted in lower ICA.

Discussion

Summary of the Research

The primary purpose of this study was to examine the relationships between EI, CQ, and ICA within a university setting of hospitality management programs throughout the United States. Based on prior research on these concepts, this study proposed and tested a conceptual model that hypothesized direct associations between EI, CQ, and ICA; this study hypothesized that EI was positively related to CQ, and CQ was negatively related to ICA. Hierarchical regression analyses supported preliminary hypotheses, revealing direct relationships between EI and CQ and CQ and ICA.

Result 1 (EI-CQ)

The results of this study revealed a significant relationship between EI and CQ. The results indicate that students with higher EI, with heightened awareness of their emotions and those of others, and the ability to adapt and communicate them effectively, also have higher levels of CQ. Communicating effectively within cultural environments requires individuals to readily adapt and regulate their emotions, especially in foreign or uncomfortable communicative situations. Therefore, individuals who have higher levels of EI typically also have higher levels of CQ, allowing them to be more at ease in multicultural situations and approach these conversations with confidence. These results are consistent with the findings of previous studies (e.g., Crowne, 2009; Earley & Ang, 2003; Earley et al., 2006; Moon, 2010). For example, Moon's study (2010) found that individuals with strong emotional regulation and management also have high levels of CQ, establishing the direct relationship between these two constructs.

Additionally, the results showed that gender, number of foreign country visited, length of stay in foreign countries, intensiveness of intercultural social interaction, and cross-cultural training were all significantly related to CQ, while other demographic factors, number of foreign countries visited, and frequency of intercultural social interaction were not. These results indicate that students' CQ may increase when they visit various countries, stay for extended periods of time, and consistently integrate themselves in cross-cultural social situations. Individuals who are more integrated in various cultures and actively pursue intercultural environments through travel and community will be more exposed to the tendencies, habits, and rituals of other cultures. This will in turn increase their CQ through a heightened awareness of cultural standards and traditions, as well as an effective means of communicating with individuals from different backgrounds or nationalities.

Result 2 (CQ-ICA)

The results also revealed a significant relationship between CQ and ICA. Students who have increased levels of CQ, with a heightened capability to adapt in multicultural settings and motivation to enter intercultural social interactions. When individuals have a greater sense of awareness in intercultural situations and a greater understanding of cultural aspects, including language, habits, traditions, or rituals, they will have less hesitancy or apprehension towards entering intercultural situations. These results are consistent with the findings in previous studies (e.g., Neulip, 2012, Tien & David, 2011; Dodd, 1995; Monthienvichienchai et al., 2002). For example, Dodd's study (1995) found that competent intercultural communicators (i.e., low ICA) have increased willingness to seek and approach intercultural social situations, and have heightened sensitivity to the cultural variances within them.

Additionally, the results of this study also showed that GPA and cross-cultural academic training were significantly related to ICA, while other demographic factors, frequency of international travel, number of foreign countries visited, length of stay in foreign countries, frequency and intensiveness of intercultural social interaction were not significant. These results indicate that students who are more invested in their academic pursuits, and the cross-cultural aspects within them, will have lower tendencies towards ICA. Students who are committed to learning and growing as young academic and professional adults pursue excellence and thorough intelligence in various concepts. Intelligence encompasses many different constructs, and students with higher GPAs and greater involvement in cross-cultural academic training have put a significant focus and importance on CQ, one of the constructs of intelligence.

Theoretical Contributions

This study highlights the relationships between EI, CQ, and ICA within a university hospitality setting. These variables are prominently used in the general management domain of business, and are increasingly important for the hospitality industry. Hospitality has expanded into a highly globalized industry, encompassing businesses and cultures from countries across the world. Therefore, it is crucial for this industry to be training students and young professionals in the constructs of CQ and EI, to create effective leaders with capabilities of communicating and leading in multicultural situations. While findings from previous studies infer a connection between these constructs, little research has been conducted on the relationship between these variables. Therefore, the findings of this study provide hospitality literature with information on a key topic necessary for the success of future leaders within this industry. Additionally, while previous studies have explored ICC far more extensively than ICA, unveiling the factors that influence intercultural communication competency rather than the apprehension. Therefore, this

study will also provide literature with information on factors that influence ICA, helping provide practical information that will decrease apprehension among hospitality industry members.

This study also focuses solely on students within four-year university hospitality programs. Despite substantial attention to EI, CQ, and ICA, previous studies have focused mainly on current employees and young professionals within the workplace, but little attention has been paid to students within the hospitality industry, especially in regards to how student CQ and ICA can be developed, enhanced, and influenced. Studying student EI, CQ, and ICA is important because they are the future leaders of the industry. Researching the student levels of these constructs will help universities and workplaces to better equip and prepare students and young professionals to enter the hospitality industry and become successful and effective leaders.

Implications

Hospitality Industry Practitioners

Given that the hospitality industry continues to expand into a more globalized market and the increasing importance for industry members to effectively navigate multicultural business interactions, the findings of this study provide important implications for industry practitioners. First, this study discovered that EI is positively related to CQ among hospitality students within the university setting. Secondly, increased levels of CQ was proved to decrease the prevalence of ICA in hospitality students. All constructs are significantly important for the success of a professional within the hospitality industry. This finding suggests that organizations should find ways to measure, evaluate, and monitor the levels of these constructs for each employee.

Research suggests that intercultural awareness and sensitivity are necessary for successful and effective communication between individuals from varying cultural backgrounds, especially in a business and hospitality setting (Chen & Starosta, 1997; Graf, 2004, Moran, Harris, &

Moran, 2007; Olson & Kroeger, 2001). Effective leaders and communicators within the hospitality industry must be able to navigate multicultural situations with ease and confidence, as the industry continues to globalize. It is crucial for companies within the hospitality industry to be hiring, maintaining, and developing employees who are culturally aware, sensitive, and competent. Businesses can ensure this standard is established within the industry by placing significant attention on how employees are selected for employment. Practitioners can measure the level of CQ in each employee prior to and during employment, which will have significant impacts on the levels of EI and ICA as well.

While there are numerous CQ assessments, industry members often use the Multicultural Personality Questionnaire (MPQ) (Van der Zee & Van Oudenhoven, 2000, 2001) or the Intercultural Development Inventory (IDI) (Hammer, 2011; Hammer, Bennett, & Wiseman, 2013). Additionally, the Cultural Intelligence Scale (CQS) was formulated by the researchers who created the concept of CQ to measure cross-cultural effectiveness, and has been tested on various scales (Earley & Ang, 2003; Buckner, Furrer, & Lin, 2015). Each assessment method is a valid and reliable testing procedure that measure individuals' capabilities to adjust to and perform in various cultural settings (Matsumoto & Hwang, 2013). Implementing these assessments as preliminary testing procedures prior to employment can assist practitioners in determining where each employee stands in regards to their level of CQ. Additionally, testing of this kind should not be an individual, singular event, rather should be given at various points during an individual's employment.

Research also suggests that many emotional factors positively influence cross-cultural adaptation in a business setting (Cui & Awa, 1992; Tang, 2001; Earley, 2002; Kim 1986; Earley & Colleagues, 2006). Effective leaders and communicators in the hospitality industry must be

able to adapt and regulate their emotions effectively in multicultural situations. They must value empathy and flexibility, while showing confidence, patience, and emotional sensitivity in these multicultural communicative situations. Therefore, hospitality organizations must also be hiring, maintaining, and developing employees who are emotionally aware, adaptable, sensitive, and empathetic. Businesses can ensure this standard is established within the industry through a heightened attention in the selection process for employment. Providing preliminary EI assessments would also be beneficial for this process.

While there are also numerous EI assessments, industry members often choose the Emotional and Social Competence Inventory (ESCI), which was designed to assess emotional and social competencies and distinguish leaders in these areas. This assessment has been tested and found as a valid and practical instrument for effectively determining individuals' levels of EI. Practitioners can also make use of the Mayer-Salovey-Caruso EI Test (MSCEIT), which tests the four branches of EI: Perceiving emotions, facilitating thought, understanding emotions, and managing emotions. This instrument has also been tested and found as a valid and practical assessment (Mayer, Salovey, & Caruso, 2004; Mayer, Salovey, Caruso, & Sitarenios, 2003). Lastly, industry members can utilize Wong's Emotional Intelligence Scale to assess individual's level of EI prior to their employment (Wong, Wong, & Law, 2007).

Practitioners must be aware that assessments accomplish little as singular practices, rather must be combined with sufficient feedback and professional development programs to truly grow and develop CQ and EI in a professional setting (Livermore & Van Dyne, 2015). Given the need for further development of these constructs, employers can provide employees with opportunities to experience and reflect through on-the-job multicultural situations. While they cannot replace the importance of experience and reflection, training and coaching programs should be

established as complementary options. Lastly, practitioners should create personal CQ development plans for each employee, as they will be more likely to enhance their CQ when given a personal development plan to follow and accomplish (Livermore & Van Dyne, 2015).

Given that hiring and maintaining employees with high levels of CQ is crucial to the success and effectiveness of any hospitality organization, the selection process must receive great attention from practitioners. It could be a beneficial tactic to recruit potential employees from ethnically diverse universities or collegiate programs that focus heavily on increasing students' CQ and EI through various programs requirements, curriculum foci, seminars, or university standards. This could be an effective method of choosing strong candidates for employment in these organizations. Additionally, companies could form partnerships with various universities, which could include development programs, speaking engagements, on-campus interviews, and internships offered to students.

In addition to recruiting procedures and preliminary assessments, continued education and training programs must be established to continue developing employees' knowledge, skills, and abilities (KSAs) in a multicultural setting. Since CQ and EI are such important factors within the hospitality industry, having modules and programs focused on cultural awareness, diversity, sensitivity, and communication, in addition to emotional adaptability, patience, empathy, and regulation could have a significantly positive impact on the company. It could help to unify the staff and create standards that keep all employees on the same page.

Higher Education of Hospitality

Higher education holds one of the largest predicting factors to young professionals' success and effectiveness in the hospitality industry. Students must receive adequate preparation, exposure, and knowledge of multicultural business environments to find success within the

globalized hospitality industry. This study found that intercultural social interaction and cross-cultural academic training had a significant impact on levels of EI, CQ, and ICA. These findings suggest that universities should create curriculum and academic training centered on the constructs of cultural awareness, diversity, sensitivity, and communication. Given that university programs are structured to provide knowledge-based experience and education to students, these programs can give students cultural knowledge and understanding that can assist them in effective communication across cultures (Gudykunst & Kim, 1984). It is important that students are not only receiving CQ in a knowledge-based format, but also in an emotional and responsive-based format, which would focus on the socio-emotional processes of empathy, flexibility, patience, tolerance, and the ability to establish relationships with those from other cultural backgrounds (Cui & Awa, 1992). Teaching these socio-emotional processes throughout the university curriculum will assist in ensuring young professionals enter the career field with adequate knowledge and experience of adapting and regulating their personal emotions and viewpoints in multicultural situations to provide the highest quality of service in the hospitality industry.

Additionally, there are numerous certifications and workshops available to equip learners with necessary cultural knowledge and tools to navigate multicultural and varied emotional situations. The Cultural Intelligence Center has created the Unconscious Bias Certification and the CQ Certification, which help students to become aware of their biases and cultural value orientations and equips them with tools to better communicate with individuals with varying orientations and cultural backgrounds. Also, the Emotional Intelligence Certification designed by Talent Smart is a prominently used resource to increase EI in professional and educational

environments. These certifications are built for a classroom structure, making them very useful resources for universities to provide to students within their curriculum.

Limitations and Suggestions for Future Research

Although the results of this study were promising and provided significantly helpful information and practical implications for industry members and higher education, there were certain limitations that must be considered when interpreting the results. One limitation that impacts the results of this study is its lack of generalizability. Generalizability describes the extent to which a sample used in a research study can reflect a broader population of individuals (Blair & Zinkhan, 2006). While this research study did utilize random selection for the creation of its sample, which would give a strong representative sample of the target population (Ferguson, 2004), it focused only on students within four-year university programs in the United States. The results of this study may not be generalizable for students in other cultures and nations, or in two-year collegiate programs. Therefore, future research may choose to replicate the scenario of this research study within a broader population, including other cultures and two-year collegiate programs.

Another limitation concerns the cross-sectional design of the study. The data for this study were collected from singular respondents at a single point in time, exploring specific, shared variables in many different groups across the country (Bobko & Stone-Romero, 1998). This type of research design lacks the long-term time element, which can increase the difficulty in determining causal relationships between the variables. Therefore, in future research, it is recommended to use a longitudinal research design to increase the time element, and show clearer variable patterns over the larger expanse of time.

An additional limitation concerns the limited number of variables used in this study. The controlled variables of this study encompassed five demographic features and six variables controlling previous international and intercultural experiences. While this was an adequate number of variables to prove relationships between EI, CQ, and ICA, future research may use more predicting and outcome variables to validate the findings of this research study.

Moreover, we were not allowed to contact students directly for data collection, relying on professors of the selected programs to administer the survey. Therefore, if survey questionnaires were not distributed according to our instructions or if student participation in the survey was not voluntary, the data in this study would be biased and the findings of this study undermined (Karatepe, 2009).

Additionally, because this study used self-reporting to determine personal abilities and predispositions, the survey might reflect a conscious response from participants hoping to make a good impression under the influence of social desirability. As a result, the relationships among variables could be exaggerated due to the common method variance (CMV) or social desirability response bias (Podsakoff, MacKenzie, Lee, and Podsakoff 2003). Although self-report technique is a useful approach for measuring emotion and cognitive variables (Schmitt, 1994), the influence of CMV cannot be completely excluded. Therefore, to obviate this bias, future research could include multiple sources using observations from instructors, advisors, or class/roommates to avoid such potential distortion.

This research particularly focused on CQ and its relationships with EI and ICA among students. However, research indicates that other intelligence-types of personal resources, like emotional intelligence and social intelligence, also correlate with CQ and thus might contribute to lowering ICA as mediators (Riggio, 2002). Therefore, future studies may consider expanding

the relationship model of this study by including a set of these intelligence variables to develop a more extensive path model.

Similarly, research suggests that CQ and ICA are influenced by many other things. For example, according to Thomas (1996), ethnocentrism, defined as the tendency to regard one's own group as the center of everything and rate and judge other groups based on its standards (Sumner, 1906), is dysfunctional and thus affects an individual's ability to respond appropriately to cultural differences as well as develop and maintain cross-cultural interpersonal interactions. Therefore, the relationships of CQ found in this study may differ because of the moderating effect of these factors. Therefore, future research may consider examining the relationship model of this study by including those contextual and dispositional moderators in the relationships.

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