The Impact of Cultural Intelligence of Tourist Guides on Tourist Satisfaction: A Study of Local Tourist Guides in Petra City, Jordan

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Abstract

This paper focuses on investigating the influence of tourist guides' Cultural Intelligence (CI) on their perceived performance and to examine the relationship between this performance and tourists' satisfaction. The study adopted the deductive approach by carrying out a survey using self-administered questionnaires that were distributed to 382 inbound tourists in Petra city-Jordan, who were selected conveniently. 290 questionnaires were collected with an achieved response rate of 76.1%. Collected data were analyzed using statistical techniques including standard multiple regression and Pearson correlation. Findings showed that CI has a positive effect on local tourist guides' performance, which in turn has a significant positive correlation with the level of tourist satisfaction. Based on these findings, official training programs that include CI courses was recommended for local tourist guides in Petra city.

Introduction

Culture is a key debatable concept and many scholars compete to define it. Examples include its definition as "a fuzzy set of basic assumptions, value, orientations to life, beliefs, polices, procedures, and behavioral conventions that are shared by a group of people, which influence each members' behaviors and his/her interpretations of the meaning of other people's behavior" (Spencer-Qatey, 2008, p.3). It is also defined as "the complex whole which includes knowledge, belief, art, morals, law, custom, and any other capabilities and habits acquired by man as a member of society" (Avruch 1998, p.6). Nevertheless, according to Liu and McClure (2001), most of the definitions of culture often colors all features of life, including individuals' activities, creativity, interactions, and relationship with the environment.

Culture usually influences individual patterns of communication, especially when communicating with people from different cultural backgrounds. Accordingly, cross-cultural communication creates complexity due to people's different cultural differences (Barker, 2016). In this sense, the ability to communicate effectively in cross-cultural situations is considered as a challenge, which needs an intercultural competence. Intercultural competence encompasses knowledge, personal motivation or drive, and skills to engage effectively with different cultures (Deardorff, 2011). Therefore, when individuals encounter different cultural backgrounds, they need to be skillful in adjusting their practices in a way that is consistent with the cultural difference of others by using a set of mental capabilities which represent their cultural intelligence (Van Dyne, Ang & Livermore, 2010; Macnab, Brislin & Worthley, 2012). "Cultural Intelligence" (CI) is defined as "a person's capacity to adapt to new cultural settings based on multiple facets, including cognitive, motivational, and behavioral features" (Earley, 2002, p.271).

Tourism industry is a rich environment for cross-cultural interaction among individuals from different cultures (Jamilena, Sabiote-Ortiz, Martín-Santana & Beerli-Palacio, 2018). Tourists from different nationalities have different cultures which clearly results in variation in their behaviors, expectations, and intentions (Atilgan, Akinci & Aksoy, 2003). According to Mariani, Borghi, and Okumus (2020), the cultural diversity of tourists and service providers affects service quality. Therefore, intercultural knowledge of service players attracts foreign tourists due to their ability to employ the verbal and/or the non-verbal communicative capabilities (Teimouri, Hoojaghan, Jenab & Khoury, 2015). Consequently, in international tourism marketing, tourists' cultural variations influence the way they evaluate services

and the way they express satisfaction or dissatisfaction (Dai, Hein & Zhang, 2019).

Tourist guiding is an intermediary system in tourism service supply (Hu, 2007). Therefore, tourist guides are considered as front-line service players that effectively impact tourists' perceptions (Sheehan, Ritchie & Hudson, 2007). Alrawadieh, Cetin, Dincer, and Istanbullu Dincerm (2020) pointed out that tourist guides can directly affect guests' experience by reflecting on the destination's cultural aspects, history, and civilization. Tourist guides often create many benefits for tourism supply party, such as serving foreign visitors by taking care of all aspects of their tour and solving all problems and obstacles throughout the journey (Ozdemir & Yolal, 2017). Furthermore, tourist guides help in promoting tourism destinations by playing the role of public relations agents (Holloway & Taylor, 2006). Tourist guides are armed with communication skills, knowledge, and ability to interpret site attractions and culture (Erawati & Budarma, 2020).

Tourism industry is a key sector which boosts national economy. In Jordan, tourism industry is a growing sector that supports the domestic economy. Interestingly, Jordan occupies a vital position in international tourism market (Al-Makhadmah, 2020). In addition, Jordan tourism key performance indicators (KPI) reveal a clear increase in tourism revenues recently, which in turn enhances gross national product (GNP) (Al-Hallaq, Athamneh & Suleiman, 2020). Based on the crucial role of tourists' guides in tourism industry, as front-line service players who engage directly with foreign visitors in cross-cultural interaction, there is a need for more research to investigate tourist guides' performance and factors affecting their performance, including their cultural intelligence (CI) level in Petra City-Jordan which is one of the famous global heritage destinations.

Background

Earely (2002, p.271) was the first scholar who introduced the concept of CI as "a person's capacity to adapt to new cultural settings based on multiple facets, including cognitive, motivational, and behavioral features". Subsequently, another definition identified the concept of CI as "the capacity for successful adaption to new cultural settings, that is, for unfamiliar settings attributable to cultural context " (Earely & Ang, 2003, p.9). CI was also defined as "the individuals' ability for personal growth through permanent learning of cultural background and understanding of differences" (Teimouri et al., 2015, p.13). These definitions imply that individuals who are culturally intelligent have the ability to modify their behaviors based on their interpretation of new cultures' values and norms. In this sense, Ersoy (2014) claimed that CI reflects a person's ability to interpret gestures and unfamiliarity of foreign people.

CI enables people to digest norms and values of encountered cultures effectively (Van Dyne, Ang & Livermore, 2010). According to Teimouri et al. (2015), individuals who have good level of CI can effectively create an intellectual framework of suitable behaviors and norms. CI includes knowledge about different cultures and the impact of their elements on communication among people in cross-cultural interactions (Deng & Gibson, 2008). It also helps individuals to be involved in various cultural environments. Furthermore, CI gives individuals more energy and confidence when facing intercultural differences (Bandura, 2002). According to Thomas and Inkson (2004), individuals who have high level of CI are more capable to respond and interact in cross-cultural situations effectively. Accordingly, CI offers capabilities that improve mutual respect and dignity among people. In addition, it enhances individuals' communication effectiveness in the global context (Van Dyne et al., 2010).

The structure of CI is rooted in four components framework which includes metacognitive, cognitive, motivational, and behavioral dimensions (Van Dyne et al., 2010). On the other hand, Ang and Van Dyne (2008) argued that the four dimensions of CI are different, depending on the personality traits of individuals. However, according to Setiawan, Hasibuan, Siahaan, Indrawan, Rusiadi, Wakhyuni, and Rahayu (2018), a person who has a good level of CI needs to master the four dimensions. This is because an incomplete CI may result in cultural ignorance. Chen, Wu, and Bian (2014) found that each of these four dimensions has a distinctive contribution in understanding and adjusting individuals' behaviors to interact with people from other cultures. Furthermore, the significance of each dimension varies across different cultural backgrounds (Furrer, Liu & Sudharshan, 2000). On this basis, Van Dyne et al. (2010) developed sub-divisions for CI components, as shown in Figure 1.
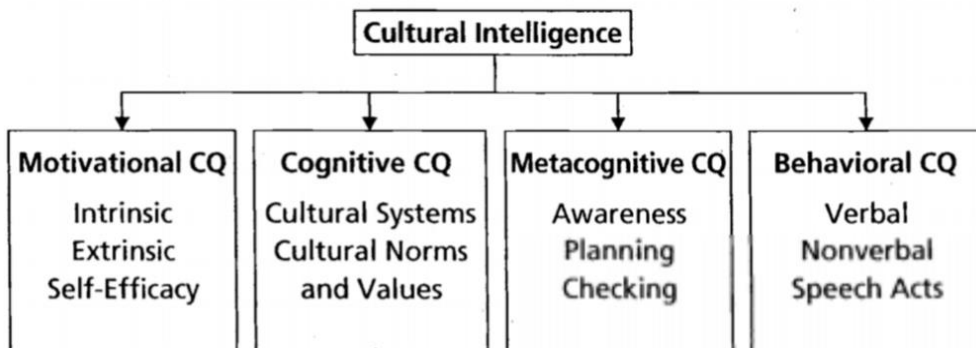

Figure 1. The Model of Four Dimensions of Cultural Intelligence
Source: Van Dyne et al. (2010, p.134)

The motivational dimension of CI refers to individual's interest and energy to interact in different cultural situations (Chen & Fu, 2018), including personal confidence and drive to encounter conflicts and challenges in cross-cultural contexts (Charoensukmongkol & Pandey, 2020). In this context, Ang and Van Dyne (2008) stated that the motivational aspect of CI relates to a person's capacity to direct his/her concern of learning so as to adjust towards proper practices when interacting with foreign cultures. In this sense, the authors listed three subdivisions for the CI's motivational construct:
- The intrinsic drive: This indicates the degree to which a person creates enjoyment in intercultural experiences.
- The extrinsic drive: This indicates the tangible benefits that a person gains from cross-cultural encounter (Van Dyne et al., 2010).
- The self-efficacy of motivation: This indicates a person's confidence in terms of efficiency and skills when engaging with cultural diversity situations.

The second component of CI is the cognitive CI, which is defined as a person's knowledge acquired from education or personal experience about social, economic, and legal features of different cultures (Chen & Fu, 2018). It focuses on cultural systems for foreign societies, including people's norms, traditions, habits, and values (Ang &Van Dyne, 2008). These cultural systems involve processes where nations organize themselves to face human basic needs (e.g., education, politics, legislations, religion, economics, etc.) (Van Dyne et al., 2010). Individuals with good cognitive CI are more able to realize similarities and differences among cultures to interact effectively (Templar, Tay & Chandrasekar, 2006). Accordingly, the cognitive feature of CI plays a significant role in different fields, particularly in human resource management.

The third component of CI is the metacognitive dimension, which means the ability of employing a cultural knowledge to interpret cross-cultural situations and to respond to cues in these situations (Triandis, 2006). In this regard, Chen and Fu (2018) described the metacognitive feature of CI as individuals' understanding of other cultures. According to Van Dyne et al. (2010), the metacognitive CI consists of three divisions:
- Awareness: This refers to the degree of harmony and correspondence between the person and others.
- Planning: This indicates anticipatory preparation to connect individuals, topics, and situations in an intercultural environment.
- Monitoring: This indicates observation to see whether the plans and preparations are appropriate in cross-cultural situations.

The fourth component of CI is the behavioral feature, which refers to a person's capability to present appropriate verbal and non-verbal actions when interacting with people from different cultures (Teimouri et al., 2015). Furthermore, the behavioral aspect of CI includes a person's ability to interact and communicate within cultural diversities in a proper way (Chen & Fu, 2018). It stands for the flexible conveyance of messages across cultures (Zhao, Deng & Kemp, 2013).

Tourist guiding profession is a vital mainstay in tourism industry where individuals are involved heavily in cultural interactions. In this regard, tourist guide was defined as "one with a broad- based knowledge of a particular area whose primary duty is to inform" (Pond, 1993, p.17). This is in addition to the core duty of taking visitors on a sightseeing attraction (Mancini, 2000). Tourist guides often play the role of "a performer and an interpreter at the center of the experience" (Overend, 2012, p.53). They also link visitors with the visited destination, particularly in intercultural settings, and act as cultural mediators (Wirawan, Kurniasari & Merati, 2020). Weiler and Ham (2002) pointed out that tourist guides are the cultural brokers between tourists and the visited site. According to Baum, Hearns, and Devine (2007), many organizations and stakeholders utilize tourist guides' capabilities to represent the destination's cultural aspects, history, and civilization in front of foreign guests. Consequently, it is important for tourist guides to employ communication skills, their knowledge, and interpretation of foreign cultures (Ap & Wong, 2001).

The review of previous literature in the topic area reveals that there is a paucity of research on CI, particularly in the Middle East. Some of them investigated the impact of CI on service providers, while others discussed CI's influence on individuals' communication skills. However, there is no study found that examines the impact of CI on tourist guides' performance. Accordingly, the current study aimed to fill a research gap of CI in the field of tourist guides literature by investigating the relationships between CI, tourist guides' performance, and inbound tourists' satisfaction. Therefore, this study intends to accomplish the following objectives:

- To assess the level of CI for local tourist guides.
- To evaluate the perceived performance of local tourist guides.
- To assess inbound tourists' satisfaction during their guided tours in Petra, Jordan.
- To examine the impact of tourist guides' CI on their perceived performance.
- To examine the correlation between tourist guides' performance and tourists satisfaction.

Study's Model

To achieve the previously mentioned objectives, a model was developed with three variables: CI, tourist guide performance, and tourists' satisfaction (Figure 2).
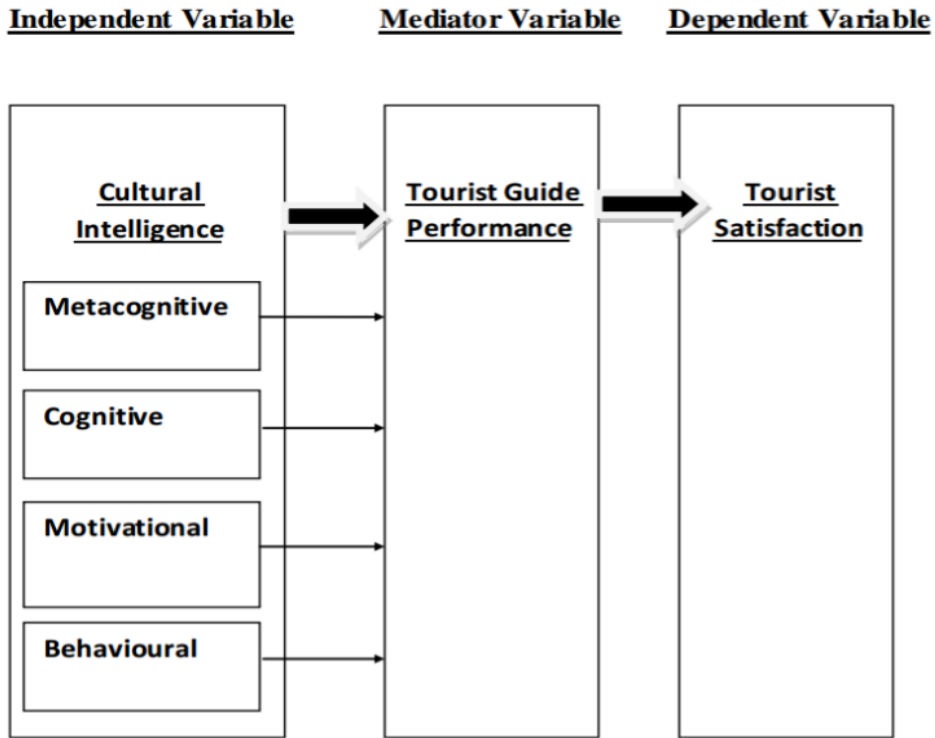
Figure 2. The Impact of Tourist Guides' Cultural Intelligence on Tourist Satisfaction
Source: developed by the researchers

These variables were interrelated through the following hypotheses:

Hypothesis 1:

H0: the tourist guides' CI cannot predict the variance in their performance.

H1: the tourist guides' CI can predict the variance in their performance.

Besides examining the impact of tourist guides' CI on their performance, all elements of the CI model were tested using the following sub-hypotheses:

Hypothesis 1.a:

H0: the metacognition construct of tourist guides' CI cannot predict the variance in their performance.

H1: the metacognition construct of tourist guides' CI can predict the variance in their performance.

Hypothesis 1.b:

H0: the cognitive construct of tourist guides' CI cannot predict the variance in their performance.

H1: the cognitive construct of tourist guides' CI can predict the variance in their performance.

Hypothesis 1.c:

H0: the motivational construct of tourist guides' CI cannot predict the variance in their performance.

H1: the motivational construct of tourist guides' CI can predict the variance in their performance.

Hypothesis 1.d:

H0: the behavioral construct of tourist guides' CI cannot predict the variance in their performance.

H1: the behavioral construct of tourist guides' CI can predict the variance in their performance.

Hypothesis 2:

H0: there is no relationship between tourist guides' performance and their tourists' satisfaction.

H1: there is a relationship between tourist guides' performance and their tourists' satisfaction.

Methodology

The current study adopted the deductive approach of research to measure and explain the causal relationships between CI, tour guides' performance, and their tourists' satisfaction based on established theories. It was designed quantitatively and a survey strategy was adopted to collect data. This adoption of survey strategy is considered practicable because it was used for tourists who were in a hurry to move between various archeological sites. The study's population consisted of inbound tourists who visited Petra city during January 2020. According to the official tourism statistics of Petra Archaeological Park (PAP) (in a personal contact with Dr. Moayad Alrwajfah, the research associate at PAP), the study's population was 75248. Among this population, 382 tourists were sampled based on the statistical table of Krejcie and Morgan (1970). Since there was no population frame available, subjects of the study's sample were accessed conveniently according to the predetermined criteria of being an inbound tourist with a guided tour, accompanied by a local tourist guide. In addition, the respondent must have a good level of English language skill.

A self-completed questionnaire was used to collect data. Questionnaires are the most efficient data collection tool that can be used to cover a large sample of tourists distributed in many archeological sites in Petra city. The study's questionnaire was structured into four parts and covered with a letter, describing the purpose of the study and confirming research ethics

(such as anonymity and confidentiality). The first part of the questionnaire was designed to collect data about respondents' demographic characteristics (including gender, age, education & nationality) in order to describe the target sample.

The second, third, and fourth parts of the questionnaire were structured using a 6 point likert scale, where "1" equals " fully disagree", "2" equals " disagree", "3" equals "slightly disagree", "4" equals " agree", "5" equals "slightly agree", and "6" equals "fully agree". This was used to measure the current study's variables, such as the constructs of local tour guides' CI, including the metacognitive, the cognitive, the motivational and the behavioral dimensions (part II: 14 statements), tour guides' performance (part III: 15 statements), and tourists satisfaction (part IV: 8 statements). Measures were established for these three variables based on the previous studies of several authors as shown below:

1. CI (Van Dyne's et al., 2010; Ang's et al., 2008).
2. Tourist guides performance (Nguyen, 2015; Huang, Hsu & Chan, 2010).
3. Tourists' satisfaction (Chan, Hsu & Baum, 2014; Chang, 2014).

After developing the first draft of the study's questionnaire, its content validity was evaluated through two stages of assessments. Firstly, it was exposed to a panel of three experts who were lecturers at Petra College for tourism and Archaeology in Al-Hussein Bin Talal University, Jordan. They were professionals in tourism and hospitality, with more than ten years of field experience. Secondly, a small pilot test of fifteen participants was undertaken. Based on these two stages of assessments, some improvements were made to the questionnaire. Although some questions were theoretical and within an academic level, they were not easily understood. Subsequently, they had to be simplified. Also, the names of the dimensions of CI were removed because they may show a sense of complexity to respondents.

After amending the study's questionnaire, 382 questionnaires were distributed to inbound tourists who visited Petra city, Jordan during August 2019. Questionnaires were handed and collected from participants in a face-to-face form to maintain a control over data collection process (Saunders, Lewis & Thornhill, 2003). At the end of data collection process, 291 questionnaires were collected with a response rate of 76.1%. However, the data collection process encountered some challenges, such as the busy itinerary of participating tourists and the limited level of English language of some participants.

The research data was analyzed through three stages. Firstly, the collected questionnaires' suitability for analysis was checked, and 20 of the questionnaires were excluded because they were not completed properly.

Secondly, raw data were coded and entered into SPSS software. Thirdly, they were subjected to a series of statistical analyses including descriptive statistics, Cronbach's alpha test of reliability, standard multiple regression, and Pearson correlation.

Results
Sample Profile

This section describes the profile of the current study's respondents. In building sample profile, several descriptive frequency and percentage analyses were applied based on the respondents' demographics (gender, age, nationality and education). Based on the results of the current study's analyses, the sample indicates that 54.4% of participants were females and 45.6% were males. The majority of respondents (76.5%) were less than 54 years. Most of the study's participants were highly educated as 63.8% had a postgraduate education.

In terms of nationality, the study's sample includes diversified nationalities. However, respondents mainly came from three continents: Europe (42%), North America (24.3%), and Asia (18.5%). Nevertheless, these statistics are close to those published by the PAP-PDTRA (2020). Thus, it is evident that the study's sample is representative to its population.

Reliability

To assess the reliability of the current study's questionnaire, a Cronbach's alpha test was applied to its scales. As shown in Table 1 below, most of the scales have a good level of reliability. However, the metacognitive dimension was not good in comparison with other dimensions scales at Cronbach's coefficient (0.639). According to Sekaran (2000), this is still an acceptable level of reliability because the lowest accepted percentage is Alpha ≥ 0.60.

Table 1. Reliability of Questionnaire's Scales

No	Name	Cronbach's alpha value
1.	Metacognitive dimension	0.639
2.	Cognitive dimension	0.766
3.	Motivational dimension	0.707
4.	Behavioural dimension	0.806
5.	Tour guide's performance	0.879
6.	Tourists' satisfaction	0.770

Descriptive Analysis of Research Variables

The 2nd, 3rd and 4th sections of the questionnaire were designed to collect data about the study's variables using likert scales of 6 points, where 1=fully disagree, 2=disagree, 3=slightly disagree, 4=agree, 5=slightly agree, and 6=fully agree. The collected data was analyzed by descriptive statistics that were suitable for continuous variables, including the mean and the

standard deviation. Results of these analyses are shown in Tables 2, 3, and 4 below.

(1)   Tourist Guides' CI
Results shown in the table below revealed that tourists reported an overall strong tendency, which means that the local tourist guides in Petra city have a high level of CI ( ). This indicates that the local tourist guides at Petra city have the necessary cultural knowledge and skills, which enabled them to interact effectively with tourists from different cultural backgrounds.

Table 2. Descriptive Statistics of CI Scales

No.	Item	Mean	SD	Median
	Metacognitive dimension			
5.	The tourist guide has a sufficient cultural knowledge enabling him/her to interact effectively with tourists from different cultures.	4.93	1.173	5
6.	The tourist guide has adapted his/her behaviour in a way that is consistent with my culture.	4.61	1.435	5
7.	Based on his/her knowledge of my culture, the tourist guide was able to manage the trip in a way that satisfied my expectations.	4.58	1.285	5
	Overall mean	4.70		
	Cognitive dimension			
8.	The tourist guide respects the values and norms of my culture.	4.54	1.423	5
9.	The tourist guide knows the religious rituals and practices of my culture.	4.54	1.354	5
10.	The tourist guide speaks my language properly.	4.54	1.510	5
11.	The tourist guide is aware of the political sensitivity that affects tourism and tourists.	4.34	1.604	5
	Overall mean	4.49		
	Motivational dimension			
12.	I believe that the tourist guide has been able to coordinate effectively between tourists of various cultures and the local community's culture.	4.42	1.587	5
13.	The tourist guide has been able to socialize with tourists from different cultures.	4.51	1.468	5
14.	I believe that the tourist guide is confident to adapt to different cultures.	4.46	1.507	5
15.	I think the tourist guide has enjoyed interacting with tourists from different cultures.	4.36	1.578	5
	Overall mean	4.43		
	Behavioural dimension			
16.	The tourist guide can speak in an accent and tone that fits my mother language.	4.41	1.534	5
17.	The tourist guide uses appropriate phrases and words that suit my culture.	4.48	1.447	5
18.	The tourist guide's body language, gestures and facial expressions are consistent with my culture.	4.60	1.431	5
	Overall mean	4.496n		
	The overall mean of CI dimensions	4.53		

Table 2 showed that all facets measuring tourist guides' CI were agreed upon strongly by the participants. Subsequently, the range lies between 4.93 - 4.34. Among these dimensions, the metacognitive dimension mean score was the highest (=4.93), whereas the cognitive dimension (M =4.34) and the motivational dimension (M =4.36) had the lowest mean. These differences in mean scores imply that although local tourist guides in Petra have the essential knowledge about other cultures, their CI level needs more improvement in two key areas.

Firstly, they need to accept the cultural differences of others (in terms of values, norms & rituals). This is especially important whenever these differences relate to political sensitivity (item 11:). In this context, Alhasanat (2016) pointed out that the knowledge of political sensitivity in service provision is essential due to its direct effect on tourist satisfaction. Secondly, local tourist guides need to put in more efforts towards social activities during their tours. Also, they need to express more enjoyment when interacting with tourists from different cultures (item 15:). In this regard, Tu, Guo, Xiao, and Yan (2020) asserted that an effective tourist guide always shows a sense of humor throughout the tour to achieve a successful tour experience.

(2) Tourist Guides' Perceived Performance

According to Table 3, results indicated that participants in this study strongly agreed that their tourist guides' performance was at a satisfactory level (M=4.60). The results also revealed that some aspects of tourist guides' performance were differentiated, such as being friendly and creating memorable tour experience (item 26: M=5.02, SD=1.234). This finding agrees with that of Chandralal, Rindfleish, and Valenzuela (2015), who connected the link between the tourist guide's ability to create memorable tour experiences and tourist satisfaction.

- Providing a delighting level of information about the history of Petra city as a global heritage site (Item 19: M=4.85, SD=1.178). According to Whittlesey (2007), tourist guides should have the ability to explain history, landmarks, facts, figures, etc., to keep the tour members well-informed about the attraction.
- Organizing tours activities effectively (Item 30: M=4.76, SD=1.307). Alazaizeh, Jamaliah, Mgonja, and Ababneh (2019) stated that the effective organization for tourism tour activities is important to achieve its objectives and enhance the positive reputation of the visited destination.
- Acting as a road explorer throughout the trips (Item 28: M=4.74, SD=1.123). Hu (2007) affirmed that professional tourist guides are expected to have a complete knowledge about the visited sites environment, including their routes' information and their geographic details to ensure a unique experience for the tourists.

Table 3. Descriptive Statistics of Tourist Guides' Performance Scale

No.	Item	Mean	SD	Median
19.	The tourist guide is well informed about Petra city's history.	4.85	1.178	5
20.	Tourist guide has been able to handle tourist's complaints.	4.20	1.531	4
21.	The tourist guide is punctual in following the itinerary and schedule of our trip.	4.72	1.323	5
22.	The tourist guide is a good facilitator of the natural environment.	4.72	1.311	5
23.	The tourist guide has shown a good responsibility for safety and security throughout the journey.	4.41	1.584	5
24.	The tourist guide is a good interpreter.	4.61	1.346	5
25.	The tourist guide has exerted his/her best efforts to assure a good provision of services.	4.55	1.387	5
26.	The tourist guide was friendly & sympathetic with us.	5.02	1.234	5
27.	The tourist guide has been able to solve conflicts that occurred among tourists and tries to always keep a good relationship between them.	4.46	1.472	5
28.	The tourist guide is a good road explorer of the trip.	4.74	1.123	5
29.	The tourist guide has a sense of humor and ability to create an entertaining atmosphere.	4.50	1.493	5
30.	The tourist guide has organized the activities in our trip effectively.	4.76	1.307	5
31.	The tourist guide has been able to meet the psychological needs of the tourists, such as a desire to gain knowledge or exploring sightseeing.	4.44	1.587	5
32.	The tourist guide has been able to manage the unexpected accidents.	4.52	1.417	5
33.	The tourist guide is open-minded towards any historical arguments about the site.	4.49	1.490	5
	Overall mean		4.60	

Although Table 3 confirmed the satisfactory level of local tourists' guides' performance, the results further reveal that there was a key weakness in the behavior of these guides. This weakness is observed in tourists' guides' ability to endure and handle tourists' complaints (item 20: M=4.20, SD=1.531). Handling customers complaints is believed to play a significant role in gaining tourists' loyalty (Liu & Li, 2019).

(3) Tourists Satisfaction

Results presented in Table 4 showed that tourists who participated in this research were strongly satisfied during their guided tour experiences (M=4.72). Tourists had a strong tendency to agree on most items measuring their satisfaction on their tour experiences. However, one item (39) scored the

weakest mean (M=4.35, SD=1.544) in comparison to other items of the same scale. This indicates that participants' intention to revisit Petra was at a level that is not consistent with their satisfaction on other aspects of their tour experience. Nevertheless, since participants confirmed their satisfaction about local tourists' guides' performance, their intention to revisit Petra may be affected with other reasons that require more research in the future.

Table 4. Descriptive Statistics of Tourists' Satisfaction Scale

No.	Item	Mean	SD	Median
34.	The tour in Petra has enriched my tourism experience.	5.00	1.175	5
35.	The tour in Petra helped me to escape from the lifetime routine.	4.77	1.158	5
36.	I have enjoyed the activities during the tour.	4.77	1.178	5
37.	I am satisfied with the tour services in Petra.	4.74	1.317	5
38.	The tour in Petra has increased my knowledge.	4.82	1.163	5
39.	I intend to revisit Petra again.	4.35	1.544	4
40.	I am going to encourage others to join a tour in Petra.	4.64	1.250	5
41.	The tour experience has improved my impression about the local residents of Petra.	4.70	1.334	5
Overall mean		4.72		

Study's Hypotheses Testing
(1) The Impact of CI on Tourist Guides' Perceived Performance

In the current study, the first hypothesis and its sub-hypotheses (sub-hypotheses 1.a-1.d) were developed to examine the impact of CI on tourist guides' perceived performance from tourists' perception. A multiple regression analysis was applied to test the previously mentioned hypothesis and its sub-hypotheses. Results of the multiple regression are shown in Table 5 below.

Table 5. Multiple Regression for the CI Influence on Tourist Guides'

Variable	Standardized coefficient "Beta"	Sig.
Metacognitive dimension	0.114	0.039
Cognitive dimension	0.174	0.002
Motivational dimension	0.442	0.000
Behavioural dimension	0.192	0.001
R square	58.4%	
Sig.	0.000	

Results of the multiple regression analysis in Table 5 revealed that the model of tourist guides' CI developed in this study was able to explain 58.4% (p≤0.001) of variance in tourist guides' perceived performance. Furthermore, the results indicated that all of the tourist guides' CI dimensions, including the metacognitive dimension, the cognitive dimension, the motivational dimension and the behavioral dimension, contribute significantly in

explaining the variance of tourist guides' perceived performance. Accordingly, the alternative parts of hypothesis 1 and its sub-hypotheses were accepted, indicating that there is a positive impact of CI on tourist guides' performance. This finding agrees with the study by Alshaibani and Bakir (2017), who found a positive relationship between CI and employees' performance in multicultural service encounter.

Another finding shown in the table above reveals that among different CI constructs, the motivational dimension has the largest contribution (β=0.442, p$\leq$0.001) in explaining the variance in tourist guides' perceived performance. Conversely, the metacognitive construct has the smallest contribution (β=0.114, p$\leq$0.05). This implies that tourists' guides' knowledge about the cultures of others has more effect on their performance than their skills in socializing and coordinating between different cultures.

(2) The Relationship between Perceived Performance of Tourist Guides and Tourists' Satisfaction

The second hypothesis of this study examined the relationship between tourist guides' perceived performance and tourist' satisfaction on their tour experience. To test this hypothesis, a Pearson coefficient correlation was conducted. The result of this analysis is shown in Table 6 below.

Table 6. Pearson Correlation for the Relationship between Tourist Guides'

Variable(s)	Tourist guides' performance
Tourists' satisfaction	0.507***

The result shown in the table above revealed that there is a significant strong positive correlation (where r =0507, n=271, and p<0.001) between tourist guides' performance and tourists' satisfaction. As a result, the alternative part of hypothesis 2 was accepted, thus confirming the positive role of the tourist guides' performance in influencing tourists' satisfaction of the entire tour experience. This finding agrees with the study by Kuo, Cheng, Chang, and Chuang (2018), who asserted that there was a positive relationship between tourist guide's performance and satisfaction of foreign visitors in Taiwan.

Discussion

To accomplish the current study's aims, five objectives were developed and achieved through the study's results. These include:

The assessment of CI level for tourist guides working in Petra, Jordan The study's findings revealed that the local tourist guides at Petra city-Jordan had a high level of CI ( ). This indicates that the local tourist guides had a high level of metacognitive CI, which provides them with the ability to use the cultural knowledge to strategize and interpret cross-cultural situations (Van

Dyne's et al., 2010). According to Chen and Fu (2018), the metacognitive construct of CI is an individual's intellectual process which enables him/her to acquire and interpret knowledge about other cultures. Such cultural knowledge provides a better understanding of tourists' needs and perceptions easily (Triandis, 2006; You, Chen & Su, 2019).

However, among different aspects of the metacognitive CI, local tourist guides varied in having a sufficient cultural knowledge to interact effectively with tourists from different cultures (4.93 1.173). They were also differentiated by their ability to adapt their behaviors in a way that is consistent with tourists' cultures (4.61 1.435).

By contrast, findings revealed that among different dimensions of CI, the lowest scores for local tourist guides were recorded. This is due to their awareness and sensitivity for political issues among different cultures ( ) and their intrinsic motivation, which affects their ability to create an enjoyable interaction in any cross-cultural experience ( ).

The evaluation of perceived performance for local tourist guides at Petra city, Jordan

Based on the study's results, it was found that the performance of local tourist guides at Petra city was perceived by tourists to be at a satisfactory level (Mean=4.60). The study's participants indicated five characteristics that were distinguishable in tourist guides' performance. These characteristics include tourist guides' friendliness and sympathy with their group members (M=5.02, SD=1.234), their level of knowledge about the history of visited site (s) (M=4.85, SD=1.178), the effective organization of their tour activities (M=4.76, SD=1.307), their capability of path-finding throughout tour roads (M=4.74, SD=1.123), their accurate commitment to the tour schedule (M=4.72, SD=1.323), and their ability to facilitate tourist experience within different natural environments (M=4.72, SD=1.311). These characteristics were considered by many scholars as the keys guiding tourist guides' professionalism (Weiler's & Ham, 2002; Chang, 2014).

The assessment of inbound tourists' satisfaction at Petra city, Jordan

Respondents of the current study demonstrated a strong satisfaction about their tour experience in Petra city (M= 4.72). They also expressed their willingness to revisit Petra again (M=4.35, SD=1.544). Many scholars argue that tourist guides' performance has a positive impact in enriching tourists experience and in achieving high level of satisfaction for the entire tour experience (Chan et al., 2015; Cetinkaya & Oter, 2016; Bahang, Wello & Akil, 2018)

The examination of the relationship between tourist guides' CI and their perceived performance

To examine the relationship between local tourist guides' CI and their performance, a multiple regression test was applied. Results of the multiple regression revealed that the tourist guides' CI was able to predict 58.4% of variance in their performance. The results also indicated that all of the CI dimensions contributed positively in affecting tourist guides performance. This result revealed that there was a direct positive influence of CI on the performance of local tourist guides. Accordingly, this is consistent with the study of Mattila (2000), which affirms the significance of CI for hospitality employees in creating an effective interaction with customers from different cultures. Crowne (2008) further stated that CI was found to positively influence employees' competence when interacting with foreign customers.

The examination of correlation between tourist guides' performance and tourists' satisfaction

Based on Pearson coefficient correlation analysis, a significant positive relationship exists between the performance of tourist guides and tourists' satisfaction (where r= 0.507, p<0.001). This result confirmed similar relationships that were found by previous studies (Cetinkaya & Oter, 2016; Alshaibani & Bakir, 2017). Beerli and Martin (2004) claimed that tourist guides' performance can strongly influence tourist's experience. Therefore, good guiding service will result in more economic benefits for the local community (Dahles, 2002).

Conclusion

The review of literature suggests that cross-cultural knowledge shaped the attitudes and behaviours of front–line employees in tourism, which, in turn, affects tourists' perceptions and satisfaction. Such notion prompted the researchers to test the interplay between tourist guides' CI and tourists' satisfaction via tourist guides' performance. Tourist guides are the most front-line players within the tourism industry since they interact with foreign guests from different cultures. Consequently, a proposed model was developed for this study which linked CI to tourist satisfaction via tourist guides' performance. The model was reliable and applicable within the Jordanian tourism industry.

The study findings showed that tourist guides' performance mediated the relationship between tourist guides' CI and tourist satisfaction. This leads to a conclusion that the local tourist guides in Petra city were well-educated about intercultural knowledge and were able to adjust this knowledge when interacting with foreign visitors from different cultures. Therefore, the quality of tourist guiding service is delivered via the display of tourist guides'

sufficient cross-cultural knowledge and their professional presentation when interacting with tourists from different cultures.

Recommendations

The current study has provided a number of significant contributions. It has added to knowledge, particularly to tourism literature by explaining the relationship between tourist guides' CI and tourist satisfaction, which has not been investigated before. The study also developed a measuring scale that can be used in evaluating tourist guides' performance. Based on the study's findings, the research proposed a set of recommendations to help in improving local tourist guiding service so as to enhance tourist satisfaction.

The study emphasized the significance of improving the level of cultural intelligence of local tourist guides in Petra city, as a global heritage site destination, to enhance the quality of tourist guiding service. Furthermore, the study's findings confirmed the relationship between tourist guides' performance and tourists' satisfaction. Accordingly, dynamic monitoring of local tourist guides' performances should be conducted periodically by official tourism institutions, such as PDTRA, JTGA, and PTGA.

The research also stresses the importance of political sensitivity for local tourist guides, which creates more political awareness regarding regional and international circumstances in order to understand visitors' political perceptions. Subsequently, this can be achieved by launching periodic awareness sessions to enhance their respect and understanding about foreign guests' political tendency, political sensitivity, and political intolerance.

On the other hand, the study recommends periodic training programs by tourism official institutions at Petra city for local tourist guides to improve their awareness towards tourists' multicultural differences. This will prevent any potential cultural prejudices and negative stereotyping when serving visitors from various cultures.

In addition, lack of events and entertaining activities during guided tours was observed during the survey. Therefore, it is recommended to invest in recreation facilities, events, and entertaining programs to enhance visitors' perceived image.

Suggestions for Further Research

In relevance to the study's limitations, certain suggestions are provided for future research.

The measurement of tourist guides' CI was based on international guests' point of view only. However, to gain better understanding of tourist guides' CI, future studies are suggested to measure the level of CI using qualitative techniques, such as interviews and observations.

Furthermore, the study encourages the need for systematic assessment of tourist guides' performance through developed satisfaction surveys. This will help future researchers to get over the limited resources and barriers that the current researchers have encountered.

Also, due to the limited resources available in the field of this research, only one tourism destination (Petra city-Jordan) was assessed. Future researches can extend their context to include more destinations and larger population so as to enhance the generalization of the study's model.

Future researches should also employ the study's model in different service industries where cross-cultural interaction is essential in service provision (e.g., hotel industry, food and beverage services). This will further enhance the validation of the study's model and establish comparative conclusions.

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