
DEVELOPMENT OF A STRUCTURAL MODEL FOR QUALITY CULTURAL HERITAGE TOURISM IN MACAO

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ABSTRACT

Macao is a city with fusion of Chinese and Portuguese colonial culture and heritage. The preservation and enhancement of this unique cultural heritage will enhance its attraction for visitors. At present, Macao is famous for its casinos and has been called the 'Monte Carlo of the Orient' with a vast amount of government revenue being collected from the casinos and gaming activities. Gaming has been an important part of Macao's tourism, with the 'gaming paradise' image of Macao being so dominant that a large proportion of visitors neglect its cultural heritage resources. Macao is the focus of this study because the government had submitted an application for Macao to the UNESCO World Heritage Centre in 2002 for adding 12 of the historical architectures in the SAR to its World Heritage list, and applied successfully in 2005, to promote Macao as the 'City of Cultural Heritage in Asia'. Macao's culture, gaming and entertainments form its major attraction for visitors and must be combined in order to boost Macao's multi-dimensional image and positive effects on the community in the long run. The

development of quality cultural heritage tourism is needed in developing Macao as a cultural heritage tourism destination. Thus, the aim of this research is to develop and test a theoretical model of quality cultural heritage tourism. It offers an integrated approach to understanding cultural heritage development and management of tourist destinations, and attempts to extend the theoretical and empirical evidence regarding causal relationships including quality of experience, perceived quality, satisfaction and behaviour intentions. The previous literature has already presented the relationship among perceived quality, quality of experience, satisfaction and behaviour intentions in cultural heritage tourism. However, there is a relative lack of academic interest, particularly in Macao. This study tries to investigate the quality and related constructs in cultural heritage tourism. It seeks to understand the major constructs considered by local stakeholders and visitors in evaluating the quality in cultural heritage tourism, the importance of the availability of quality in the overall experience, visitors' behaviour toward quality cultural heritage tourism and also the constructs related to quality.

Keywords: Quality, cultural heritage tourism, Macao

INTRODUCTION

The holidays and travel sections of any weekend newspaper or magazine shows that cultural heritage tourism is an essential part of the tourism industry and planning cultural heritage tourism for destinations in which the importance of quality is highlighted is now increasingly common. It is necessary to create knowledge on quality cultural heritage tourism because it can be considered as the foundation of tourism planning, the author believes that developing a model of quality cultural heritage tourism can build up such knowledge. Although many models related to cultural heritage tourism have been developed in the past decades, they are successfully applied only in developed societies and in western cultures. However, Macao is part of China which is a non-western society and a developing country (Hsu, Cai & Wong, 2007). Those models may not be applicable and relevant in non-western society and a developing country such as Macao, China. More specifically, there are no previous studies investigating the quality of

cultural heritage tourism in Macao. Based on this concept, it is necessary to develop a model which is feasible for non-western society.

The tourism industry is prominent in Macao's economy, particularly in the gaming sector. With a population of 549,200 inhabitants (DSEC, 2009b), visitor arrivals for the whole year of 2009 were 21,752,800 (DSEC, 2010); visitors were mainly from Mainland China (55.7%), followed by Hong Kong (29.8%) and Taiwan (4.9%) in 2009. Mainland China remains Macao's largest source market. Each visitor stays for an average of 1.44 nights (DSEC, 2010). Since the liberalisation of the gaming industry in 2003, the development of Macao's economy has been propelled by gaming together with tourism. Macao is renowned for its casinos and is often called the 'Las Vegas of the Orient'. Its gaming revenues alone contributed more than US\$7.2 billion in 2006, exceeding the US\$6.6 billion made on the Las Vegas strip during the same year (CIA, 2008), and have thus become an important feature of Macao's economy which depends almost entirely upon the gaming industry. Also, the development for tourism in Macao is mainly attributed to the expansion of its gaming sector. Therefore, the impact of the global economic recession is more obvious on tourism and the gaming industry. The gross gaming revenue went down by 12.7% (equivalent to ¹MOP26.25 billion in the first quarter of 2009). Visitor arrivals totalled 5,454,170 in the first quarter of 2009, down by 9.6% year-on-year (Macao Economic Bulletin, 2009). Per capita spending of visitors (excluding gaming expenses) for the first quarter of 2009 contracted by 5.3% to MOP 1,638, much lower than the MOP1,788 in the previous quarter, while the per capita shopping spending decreased by 10.8% to MOP657 (Macao Economic Bulletin, 2009). All these result from an over-concentrated tourism development in Macao, relying too heavily on the gaming industry. Diversification becomes a timely issue for policy makers to address in order to have more stabilised tourism development.

Although Macao is renowned for its gaming industry, the importance of cultural heritage tourism should not be disregarded. Due to its geographical background and the early settlement of the Portuguese, Macao became the perfect crossroad

¹ MOP = Macao Patacas, US\$1 = MOP8

for the meeting of Eastern and Western cultures. With its rich culture and long history, 'The Historic Centre of Macao' was successfully inscribed on the World Heritage Site (WHS) List in 2005, making it the 31st designated World Heritage site in China. The importance of cultural heritage development in Macao is thus gaining greater importance. However, little research attention has been given to this aspect, especially the role of quality in Macao's cultural heritage tourism planning. To achieve Macao's strategic goal of 'Destination of Cultural Heritage in Asia', it is critical to develop a theoretical model for quality in cultural heritage tourism in order to sustain the future development of Macao's cultural heritage tourism and to ensure effective performance in the future. Through investigation the current situations in the perspective of the stakeholders and visitors, it is believed that tourism stakeholders and visitors exercise some influence and may lead to the continuous improvement on the development of cultural heritage tourism in Macao. It can therefore boost Macao's multi-dimensional image and positive effects on the community by incorporating its cultural heritage attractions and other sectors in tourism.

RESEARCH AIMS AND OBJECTIVES

This study aims to develop a theoretical model for quality in cultural heritage tourism in order to sustain the future development of Macao's cultural heritage tourism and ensure us effective performance. The intention is to develop an understanding the constructs in quality and also how they relate to quality of experience, satisfaction and subsequently drive behaviour intentions. By understanding the relationships between quality constructs and their determinants, destination tourism providers would know better how to build up the quality in cultural heritage tourism and improve their planning to maximise use of resources. The objectives of the research are therefore twofold. The first is to construct a more integrated model of quality in cultural heritage tourism by including the 'quality-satisfaction-behavioural intention' paradigm. The second is to determine the relationships between the quality constructs and affected attributes in their prediction of future behavioural intentions. In order to achieve the objectives, the research identifies constructs regarding quality in cultural heritage tourism for Macao. The constructs include perceived quality, satisfaction

and behaviour intentions. Specifically, it seeks to find out the major attributes considered by the visitors in evaluating those constructs in cultural heritage tourism for Macao context. The proposed model also identifies the relationships among the quality constructs that quality of experience are likely to influence the perceived quality, level of satisfaction and future behavioural intentions within cultural heritage tourism.

LITERATURE REVIEWS

Perceived quality

Definitions of perceived quality and empirical evidence indicate that perceived quality is an appraisal construct (Zeithaml, 1988; Bolton & Drew, 1991). Perceived quality is the consumer's evaluation of a product's overall excellence or superiority (Olshavsky 1985; Parasuraman, Zeithaml & Berry, 1985; Zeithaml, 1988). In the service literature, service quality often refers to quality as perceived by customers (Parasuraman et al., 1988; Yuan & Jang, 2008). It is the comparison between expectation and actual performance (Chen & Tsai, 2007). Perceived quality is generally treated as a post-purchase construct (Roest & Pieters, 1997). Zeithaml, Berry and Parasuraman (1990) mention that people's perceptions of services or products are made at the end of their encounter. On the contrary, they believe that there is an endless potential for judgements to be made during the service delivery process and then once more at the post-consumption stage. People's perceptions of quality cultural heritage tourism are perceived differently by different of groups or destinations of people. Thus, the keys to sustaining the development of cultural heritage tourism and management are to identify the perceived quality in cultural heritage tourism. Brady and Cronin (2001) mention that the perception of quality is determined by three dimensions: outcome quality, interaction quality and physical environment quality. Outcome quality is what the customer obtains when the productive process ends, interaction quality refers to the interaction that takes place while the service is being delivered and environment quality refers to the ambient conditions where the service is delivered or the product is sold.

Satisfaction

Recent reviews of satisfaction literature document the dramatic increase in satisfaction/dissatisfaction research over the past decade, particularly in the marketing and management fields. The topic of satisfaction in cultural heritage tourism is becoming more and more crucial, such as the studies of museum visitors' satisfaction. Previous works have emphasised the effect of quality on satisfaction (Caldwell, 2002; de Ruyter, Wetzels, Lemmink & Mattsson, 1997; Harrison & Shaw, 2004). Therefore, there is a rich mixture of conceptual and theoretical discussions and empirical studies investigating antecedents and consequences in satisfaction (Woodruff, Cadotte & Jenkins, 1983). Satisfaction is simply a post-experience attitude and attitudes are not fixed or tangible parameters. An attitude is defined as customers' overall affective reaction to a product or a service (Cadotte, Woodruff & Jenkins, 1987; Oliver, 1980; 1981). Typically, satisfaction is viewed through well-defined questions, with respondents providing an assessment of their attitude on a Likert scale or a related rating scale format (Veal, 1997). Satisfaction is considered a judgement, attitude or psychological state arising from consumers' disconfirmation of expectations (Woodruff et al., 1983; Rust & Oliver, 1994; Oliver, 1996).

Quality, satisfaction and behavioural intentions

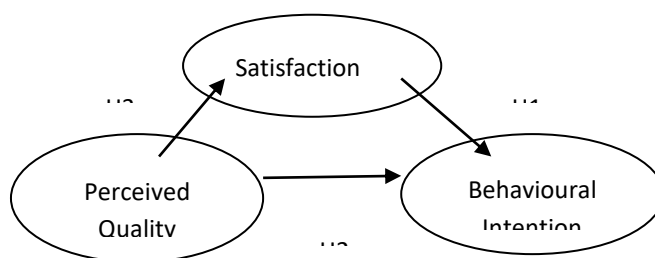
Cronin, Brady and Hult (2000) indicate that numerous studies have specified relationships among quality, satisfaction and such consequences as positive word of mouth, price premiums and repurchase intentions. They also identify several competing models of direct effects among service quality, satisfaction and behaviour intentions. One of the models is derived from the satisfaction literature that defines customer satisfaction as the primary and direct link to outcome measures (Anderson & Fornell, 1994; Clow & Beisel, 1995; Andreassen, 1996; Fornell et al., 1996; Hallowell, 1996; Mohr & Bitner, 1995; Spreng, Mackenzie & Olshavsky, 1996; Athanassopoulos, 1999; Bolton & Leomn, 1999; Ennew & Binks, 1999). Thus, studying satisfaction or dissatisfaction is crucial because it may affect expectations for the next purchase and future behaviour (Westbrook & Newman, 1978; Woodruff et al., 1983). Previous researches have confirmed that there is a direct and positive relationship between tourists' satisfaction and behavioural

intentions such as revisiting and recommending (Baker & Crompton, 2000; Kozadk & Rimmington, 2000; Oh, 1999; Yoon & Uysal, 2005). However, this relationship may be more complicated because a destination can be considered as a product. Different visitors can have various consumption objectives and behaviours after the visits. 'Intention to return' and 'willingness to recommend the destination' can be conceived as behaviour variables. The researchers also suggest that 'perceived quality' and 'satisfaction' are the evaluative variables related to the evaluation of the stay (Bigné, Sánchez & Sánchez, 2001). It is important to highlight that researchers should be interested in the tourists' view rather than the providers' (Bigné et al., 2001). On the other hand, there is also a model in previous studies which emanates from the literature and it investigates the relationships between service quality, satisfaction and behaviour intentions (Cronin et al., 2000). Those studies indicate that the majority of studies agree that service quality influences behaviour intentions only through perceived value and satisfaction (Anderson & Sullivan, 1993; Gotlieb, Grewal & Brown, 1994; Patterson & Spreng, 1997; Cronin et al., 2000). There has been a great body of studies focusing on the interrelationship between quality, satisfaction and behaviour intentions (Backman & Veldkamp, 1995; Baker & Crompton, 2000; Cronin et al., 2000). They suggest that there are relationships among the choice of a destination to visit, subsequent evaluations and future behaviour intentions. The subsequent evaluations include the travel experience or perceived trip quality during the stay, perceived value and overall satisfaction, while the future behaviour intentions include the intention to revisit and the willingness to recommend (Chen & Tsai, 2007). Although the researchers highlight the importance of perceived value, Hallowell (1996) indicates that perceived value equals perceived service quality. Some researchers argue for a direct effect between perceived quality and behaviour intentions (Parasuraman et al., 1991; Boulding et al., 1993; Taylor & Baker, 1994; Zeithaml et al., 1996). In fact, empirical research revealed the positive impact of perceived value on future behavioural intentions (Bojanic, 1996; Baker & Crompton, 2000; Cronin et al., 2000; Tam, 2000; Petrick, 2004). Thus, perceived quality, experience and satisfaction have been shown to be good predictors of future behaviour intentions.

Furthermore, based on the Baker and Crompton's (2000) model and the previous literature reviews, there are three key components in cultural heritage tourism

that are developed, including perceived quality, satisfaction and behavioural intentions in the proposed model. The hypothesised model shown in Figure 1 and the hypotheses are shown below that is The attributes of perceived quality are significantly determine satisfaction or dissatisfaction, which greatly affect post-trip evaluations such as recommendations to others, the prospect of repeat visitations and the visiting of neighbouring destinations. This conceptual model is tested and is expected to show that the testing and refinement of the conceptual model presented in this study may be applied to other cultural heritage destinations. This study is generally focused on both theoretical and practical standpoints in order to enhance current levels of knowledge that exists in quality cultural heritage tourism, especially in Macao. In terms of its potential theoretical contribution, it validated the various attributes as key factors in quality cultural heritage tourism that perceived quality is likely to influence the level of tourist satisfaction and behaviour intentions. Each attribute examined with these three constructs also illustrated the interplay between perceived quality, satisfaction and behavioural intentions within the cultural heritage tourism industry. In terms of its potential practical contribution, the findings from this study provided new insights regarding cultural heritage tourism from the viewpoint of the visitors. Also, it examines how tourism destinations can be assessed and improved by examining the affecting attributes. It could assist the management and development of cultural heritage tourism in the long run.

Figure 1: Conceptual model of study



Hypothesis 1: Satisfaction in cultural heritage tourism is strongly and positively associated with behavioural intentions to return to the same destination and to visit other similar destinations.

Hypothesis 2: Perceived quality in cultural heritage tourism has a strong effect on behavioural intentions.

Hypothesis 3: Perceived quality in cultural heritage tourism has a strong effect on tourist satisfaction.

METHODOLOGY

A quantitative method is adopted in this study. The survey method is one of the most frequently used designs in dissertations within the leisure and tourism fields (Smith, 1995; Finn, Elliott-White and Walton, 2000), which is also reinforced by the various academic journals on the subject. Furthermore, Smith (1995) mentioned that surveys are the most important source of information for tourism analysis, planning and decision-making. The normal survey tool is a series of printed questions in the form of a questionnaire or an interview schedule of some sort. The purpose of the questionnaire is to obtain reliable and valid data on the subject being researched (Finn et al., 2000). This study is used a free-response technique to study visitors' perceptions of quality in cultural heritage tourism. In particular, it investigates the attributes of perceived quality and the relationships among experience, satisfaction and behaviour intentions. It also investigates their relative importance for the quality mix within cultural heritage tourism. Furthermore, it is feasible to interview individuals on the street by using survey and obtain a generalised perception of quality in cultural heritage tourism and compare its specific operations.

In order to test the proposed hypotheses and model, the questionnaire survey based on information collected from travellers to Macao and a quantitative method is adopted. The survey is one of the most frequently utilised designs in dissertations in the leisure and tourism fields (Smith, 1995; Finn et al., 2000), also reinforced by the various academic journals on the subject. Furthermore, Smith (1995) mentions that surveys are the most important source of information for tourism analysis, planning and decision-making. The normal survey tool is a series of printed questions in the form of a questionnaire or an interview schedule of some sort. The purpose of the questionnaire is to obtain reliable and valid data on the topics being researched (Finn et al., 2000).

This study uses a face-to-face survey method. Once the final measurement scales and the survey questionnaire are developed, the survey is made. However, prior to collecting the main data, a pilot study is also conducted to test the measurement scales and survey questionnaire in order to improve clarity and readability. No follow-up is made in this survey due to situational difficulties arising from this on-site survey and the respondents' being visitors in Macao. The targeted respondents are visitors in Macao because little attention focuses on cultural heritage from a visitor perspective, in identifying individual visitor needs, motivations and, in particular, the value sought and gains from visiting heritage attractions.

The objective of the survey is to investigate the general opinions about quality constructs on cultural heritage tourism. The sampling error in the survey was expected to decrease as the size of the sample increased (Hurst 1994). The literature suggests that the ratio between the number of items and the sample size should exceed a certain minimum and be at least 1:5 (Hinkin, Tracey & Enz, 1997). Besides, according to Leedy and Ormrod (2001), if the population size reaches 5000 or more, a sample of 400 will be adequate. Since tourist arrivals in Macao have continued to grow to 27 millions in 2007, 500 respondents are more than adequate (DSEC, 2008). Furthermore, structural equation modelling (SEM) is to be used for the data analysis of Study 2. The sample size plays an important role in interpreting SEM results. The recommendations are for a size ranging between 100 to 200, with a sample of 200 being a 'critical sample size' (Jöreskog & Sörbom, 2001). Therefore, the sample population is raised from 400 to a total minimum of 500. This study used a face to face survey method. However, before collecting the main data for this research, a pilot study was also made to test the measurement scales and survey questionnaire to improve clarity and readability.

The target respondents were the visitors travelling to Macao, with a total sample size of 500 selected through convenience sampling. Experienced interviewers (the author chose Institute for Tourism Studies undergraduate students with previous experience in data collection) were hired to administer the questionnaires. In order to ensure consistency in results, the interviewers were trained and briefed by the author. During the data collection dates, they were also monitored to ensure that everything went smoothly and that the data were relevant. The interviewers were sent to Senate Square, the place most visited by both cultural

and non-cultural travellers in Macao and the targeted respondents were approached randomly on weekdays, weekends and public holidays.

DATA ANALYSIS

Structural equation modelling (SEM), using the AMOS 5.0 programme, allows the relationships to be submitted for analysis symbolically, thus eliminating the need for the unwieldy creation of a detailed mathematically precise representation of the relationship. It tests the proposed relationships in the proposed model to see if it is accurate or if it needs modification (Reisinger & Turner, 2003). It has also been applied in several researches to test the causal relationships in the model and the important constructs that can be modelled (Swanson & Horridge, 2004; Lam & Hsu, 2005). In tourism research, structural modelling has recently been used to measure service quality and satisfaction in the hotel/motel industry and in studying travellers' and retailers' perceptions of service levels at a specific tourism destination (Reisinger & Turner, 2003). Thus, SEM is chosen for data analysis. Furthermore, the proposed model features multiple-indicator approach to measurement therefore confirmatory factor analysis (CFA) is more suitable for this study. The results of CFA include estimates of covariances between the factors, loadings of the indicators on their respective factors, and the amount of measurement error for each indicator (Kline, 2005).

Table 1: Respondents' profile

	No of Respondents	Percentage		No of Respondents	Percentage
Gender			Occupation		
Mal	197	47.7	Senior	21	5.1
Female	216	52.3	Professionals	86	20.8
Age			White-collar	110	26.6
20 and < 20	37	9.0	Blue-collar	49	11.9
21 – 30	128	31.0	Students	55	13.3
31 – 40	115	27.8	Unemployed	41	9.9
41 – 50	82	19.9	Self-	40	9.7

51 and above	51	12.3	Others	11	2.7
Nationality			Monthly		
Hong Kong	161	39.0	1000 and	115	27.9
Mainland	177	42.9	1001 – 5000	108	26.2
Taiwan	36	8.7	5001 – 10000	64	15.5
Korea	1	0.2	10001 –	39	9.4
Others	38	9.2	15001 –	38	9.2
Educational			20001 –	22	5.3
Primary	14	3.4	30001 –	14	3.4
High school	143	34.6	50000		
or vocational			50001 and	13	3.1
Bachelor	256	62.0	above		
degree or					

As shown in Table 1, the sample is reasonably evenly distributed in both genders (male-47.7%/female-52.3%) in a total of 413 respondents. The median income of the respondents is MOP13, 596.25 and their average age is 35. As might be expected, the visitors who involve in cultural heritage tourism are relatively old since most respondents are above 30 years old (31 to 40- 27.8% / 40 to 50 -22.3% / >50 -9.9%), particularly 32.2% of respondents are above 40 years. On the other hand, most respondents have a high educational level (the bachelor degree or above – 62.9%) and those are mainly white-collar workers (26.6%) and professionals (20.8%). These results are consistent with the literature in cultural heritage tourism. Most respondents are from Mainland China (37%), followed by Hong Kong (32%) which corresponds to the visitor arrivals in Macao. Therefore, the data seems to be well representative of the target population.

The, to investigate the reliability of the scales in the study, the author calculates Cronbach’s alpha coefficients. The reliability and normality analysis are used in order to check the internal consistency of the items measured. Based on the abovementioned literature, reliability tests are performed by examining Cronbach’s alpha values. Nunnally and Bernstein (1994) suggest that a Cronbach alpha greater than 0.70 is moderately reliable. Also, an alpha of 0.70 is deemed acceptable for scales with six or more items. The factor loading and reliability are shown in Tables 2 and 3.

Table 2: Results from factor analysis

	Factor loading	Cronbach's alpha values
Perceived Quality		.090
Treatment received from staff	.752	
Staff willing to look after visitors	.749	
Installations in cultural heritage attractions	.732	
Atmosphere in cultural heritage attractions	.743	
Education experience and instructive experience in cultural heritage attractions	.750	
Informative panels in cultural heritage	.758	
Cultural heritage resources excellent	.761	
Cultural heritage resources authentic	.747	
Cultural heritage resources presented through	.723	
Satisfaction		.713
This is one of the best destinations I could have	.702	
I am pleased with my decision to visit the	.739	
I have really had a good time; I have had fun in	.729	
Macao is a city of cultural heritage	.570	
Overall satisfaction	.607	
Behavioural intentions		.891
I will recommend someone to visit Macao	.811	
I will say positive things about the cultural	.808	
If there were a shop, I would buy a souvenir/ I have already bought a souvenir	.779	
I have bought a book or guide book or guide book for more information	.826	
I will visit Macao again because of cultural	.809	
I will visit Macao again because of other	.800	

Table 3: Reliability coefficients of scales used in the study

	Items	Items	Cronbach's alpha
Perceived Quality	9	NONE	.900
Satisfaction	5	NONE	.713
Behavioural	6	2	.891

As depicted Table 2, the values of Cronbach's alpha of all variables, exceeded 0.7, ranging from 0.713 to 0.900. The results indicate that adequate internal consistencies are established. Two attributes in behaviour intentions are deleted due to the low factor loading including 'I will visit neighbouring destinations of Macao' and 'I will stay longer in Macao'. Furthermore, a distribution is considered to be normal when the value of skewness divided by the standard error is not greater than 3.0 in absolute value (Chou and Bentler, 1995) and the value of kurtosis divided by the standard error is not greater than 10.0 in absolute value (Hoyle and Panter, 1995). The normality analysis shows the reasonable results in Table 4.

Table 4: Skewness and Kurtosis of the constructs

	Skewness		Kurtosis	
	Statistic	Std. Error	Statistic	Std. Error
Perceived Quality	.180	.120	.422	.240
Satisfaction	-.055	.120	.456	.240
Behavioural Intentions	-.253	.120	.528	.240

As shown in Table 3, the skewness values of all other variables are below 3.0 in absolute value. On the other hand, the kurtosis values of all variables are below 10 in absolute value. Thus, it is concluded that there is no outstanding non-normality issue. In brief, the results of reliability and normality testing by examining skewness and kurtosis indicate that the scores of each composition of variables fulfill the requirements of the normal distribution. For the reliability test by assessing the values of Cronbach's alpha, all variables have established reasonable internal consistency for further analysis.

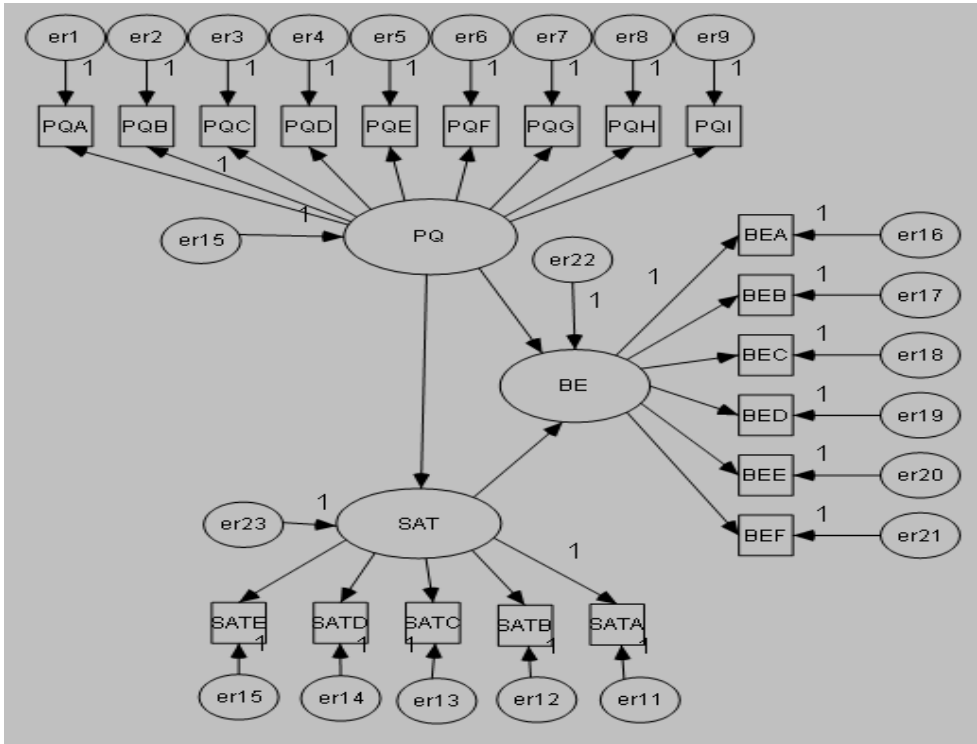
As shown in Table 5, all the relationships reported are related in the expected direction. Perceived quality is significantly related to the other constructs, while its correlations with other variables are in the expected direction without statistical significance. This is consistent with the proposed model that perceived quality is directly related to satisfaction and behavioural intentions.

Table 5: Means, Standard Deviations, and Correlations of Proposed Variables

Measure	Items	M	SD	PQ	SA	BE
Perceived Quality	10	3.55	.441		.387	.329
Satisfaction	5	3.48	.535	.387		.470
Behavioural Intentions	7	3.31	.490	.329	.470	

Although SEM analysis is more complex than simple correlation coefficients without other things held constant, the correlation results help the researcher to anticipate potential problems that could be encountered when conducting the SEM analysis. As all correlations were related in the expected direction, these results signal that there seems to be no difficulties with the SEM analysis. Maximum likelihood estimation techniques are employed to test the relationships among the constructs in the proposed model. The result of the model suggested a reasonable model fit. Normed chi-square was 4.474, which was between 1.0 and 5.0. RMSEA has 0.82 while GFI and TLI were 0.868 and 0.862 respectively, which were both greater than 0.80. Following these procedures, the modified main model was found to display a significant fit. Moreover, in keeping with the practices of other researchers this proposed model is an acceptable candidate as a model to explain all the experimental data.

Figure 2: Measurement model of proposed model



IMPLICATIONS AND DISCUSSIONS

As Kelloway (1998) mentions, finding the expected pattern of correlations in a model would not imply that the theory is right, only that it is plausible. There might be other theories that would result in the same pattern of correlations. The results indicate that the proposed model fits well and outperforms the proposed model. They also support the direct effects that perceived quality and satisfaction have on behaviour intentions. Also, the results can support and build on the extant literature in cultural heritage tourism. The first is the confirmation of the quality model because of its high validity. Although this model is developed by Baker and Crompton's (2000), it is still applicable in Asian destination. Visitors evaluate their satisfaction levels based on perceived quality from cultural heritage tourism and subsequent behaviour. Comparing two pathways (perceived quality → satisfaction and perceived quality → behavioural intentions), the author

affirms that the effect of perceived quality on quality model is crucial. However, the author has analysed the intensification of use by measuring the purchase of related products or materials, and the results showed that intensification does appear to be a behaviour correlated to visitor satisfaction. It is consistent with previous study (de Rojas & Camarero, 2008). For the managerial implications, tourism providers have to blend the significance of the cultural heritage attractions into the construction of a competitive tourism strategy. The strategy should integrate the quality and significance of cultural heritage attractions in generating a fulfilling visitor experience. Also, the research suggests the importance of perceived quality as a base of satisfaction. It seems that appropriate strategies adopted by tourism providers are essential at the time of planning and developing the destinations. The attributes in perceived quality can be divided into three categories including interpretation, authenticity and educational benefits. Since interpretation, authenticity and educational benefits are the attributes of perceived quality, the tourism providers should consider various strategies to create visitors' positive experience based on the former constructs. The presentation related to interpretation and educational benefits of cultural heritage resources contributes to stimulate interest and create a positive perceived quality for the visitor. It can also allow visitors to understand the cultural heritage resources. According to de Rojas and Camarero (2008), adequate interpretation can increase visitors' involvement and stimulate them to spend more time in the destinations. Furthermore, it can encourage visitors to revisit and even help in conservation of the resources. The author hopes that the current research can provide a direction for future policy making for cultural heritage resources in destinations. Thus, the tourism providers should have their attention to develop differentiated products by improving the quality of attractions and resources. In addition, the interpretation and education benefits not only provide knowledge to visitors but also enhance visitors' awareness about the destinations. The visitors can thus be placed as the focal point of future development and planning (Apostolakis & Jaffry, 2005). By construction of the quality model, policy makers can understand the needs of the visitors and the weaknesses of quality in cultural heritage tourism. The information provides the grounds for the destinations which focus on a tourist-oriented approach in cultural heritage tourism development.

Limitations

The limitations of this study should be considered as they are an issue in any research project. First, the proposed model is not designed to include all possible attributes which influence quality in cultural heritage tourism. The author limits the consideration to the identified attributes because the study focuses only on the relationships between perceived quality, satisfaction and behaviour intentions. Although the author gathers sufficient data, the data set from the survey might create a fragmented in the experience. The targeted respondents in this study are the tourists in Macao. According to Terwee (1990), a tourist is difficult to understand in the survey language. They might misunderstand the meaning of the questions in the survey. The researchers might seek for generalisability when they design the survey in order to let the respondents understand the questions. The changes might not show the original meanings of the studies. In addition, SEM methodology and AMOS analysis may be construed as a limitation because the model is not tested using an experimental design; strong evidence of causal effects cannot be inferred. Importantly, the results are intended to support the a priori causal model (Cronin, Brady & Hult, 2000). The use of additional attributes in the constructs might affect the inherent reliability and validity of the measures used. According to Cronin, Brady and Hult (2000), measures of actual purchase behaviour is better than investigation of behaviour intentions because it could enhance the validity of the study. However, such data are often difficult and costly to gather. It should be noted that this research is limited in scope. Therefore, tourism practitioners who look to the literature as a means of setting quality are being misled by the objective of the research.

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