

# 行政院國家科學委員會專題研究計畫 成果報告

## 國際觀光旅館顧客滿意度指標之建置—美國顧客滿意度指標與消費情緒整合觀點 研究成果報告(精簡版)

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 期中進度報告

國際觀光旅館顧客滿意度指標之建置—美國顧客滿意度指標  
與消費情緒整合觀點

計畫類別： 個別型計畫  整合型計畫  
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# 國際觀光旅館顧客滿意度指標之建置—美國顧客滿意度指標

## 與消費情緒整合觀點

Integrating ACSI and Consumption Emotion to Develop a Customer Satisfaction Index  
for International Tourist Hotel

計畫編號：NSC 99 — 2410 — H — 216 — 006

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計畫主持人：鄧維兆

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### Abstract

This research proposes a Hotel Customer Satisfaction Index (H-CSI) for international tourist hotel by adapting the ACSI model and integrating the consumption emotion element. The H-CSI scale items are primarily designed by referring literatures and the suggestions of focus group. A survey was conducted with 412 customers of international tourist hotel. Partial least squares method is employed to validate the measurement instruments in the H-CSI model and to estimate weights of customer satisfaction scale items.

The H-CSI model exhibits strong explanatory power with its satisfactory reliability and validity results. Moreover, the proposed model consists of well-established theories and approaches in customer behavior. Finally, the H-CSI can serve as a useful tool for tracking performance and systematic benchmarking over time in international tourist hotel.

*Keywords:* International tourist hotel, Customer satisfaction index, Consumption emotion, ACSI, PLS

### 1. Introduction

The issue of customer satisfaction has attracted much attention in recent years. The American Customer Satisfaction Index (ACSI) had established in 1994, which was inspired by the Swedish Customer Satisfaction Barometer (SCSB) (Fornell, Johnson, Anderson, Cha, & Bryant, 1996). The

ACSI model is embedded with sets of causal relationship and can indicate the relationship that runs from the antecedents of customer satisfaction (customer expectation, perceived service quality and perceived value) to its consequences (customer complaints and customer loyalty)(Fig. 1). The ACSI model is used extensively to measure satisfaction and loyalty for nation, industry or company field (Anderson & Fornell, 2000; Hsu, 2008; Terblanche, 2006). Anderson and Fornell (2000) indicate a strong positive relationship between the ACSI and national economic returns. Terblanche (2006) applies ACSI to South African motor vehicle industry for explaining and predicting customer retention of a particular company or brand. Moreover, numerous researchers indicated the Customer Satisfaction Index (CSI) can serve as a predictor of companies' profitability and market value (Anderson, Fornell & Lehmann, 1994; Anderson, Fornell & Rust, 1997; Eklof, Hackl & Westlund, 1999). Therefore, the ACSI provides more direct and comprehensive measure of customer's consumption utility, subsequent behaviors and economic performance.

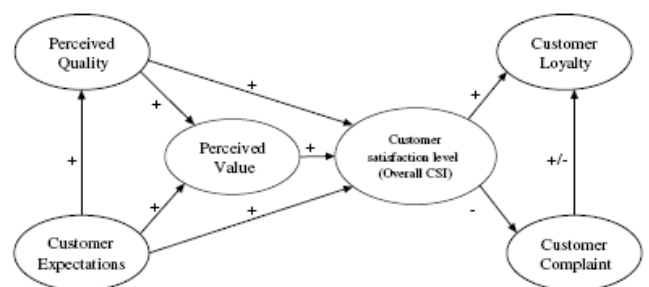


Fig. 1. The ACSI model.

Tourism industry plays an important role in the gain of Gross Domestic Product (GDP) and the supply of work opportunity in most nations. Hotel industry participates with major service of tourism industry and faces stronger global marketplace competition than other supply industries. With proliferation of brands, domestic or international, the operation environment of Taiwanese hotel industry is very competitive. For the international tourist hotels with same market position, hardware differentiation may be less but software differentiation is a crucial factor for establishing hotel's competitiveness. Nowadays, a hotel's growth is acquired by increasing its market share among competitors in the same market. Delivering superior customer value and satisfaction are crucial to the competitive edge of a firm (Kotler & Armstrong, 1997; Weitz & Jap, 1995). Therefore, using a suitable customer satisfaction index for understanding customer satisfaction situation within competitors and own performance definitely is a critical management issue in every hotel. However, until now a customer satisfaction index for international tourist hotel has never been built, validated and tested.

In the ACSI model, numerous researchers have found that the construct of customer expectation does not have significant influence on the customer satisfaction level (Johnson, Gustafsson, Andreassen, Lervik & Cha, 2001:15; Martensen, Gronholdt & Kristensen, 2000:4). Therefore, these studies have suggested the construct of customer expectation should be removed from the CSI model. Barsky and Nash (2002:3) indicate the emotions that hotel's guests feel during their stay are critical components for satisfaction and loyalty. Good result of customers' consumption emotions can create satisfactory service experiences to deliver customer value and to build customer loyalty (Dube & Menon, 2000; Dube & Renaghn, 1999). Therefore, this research considered to replace customer expectation with consumption emotion in the ACSI model.

Furthermore, for making perceived quality construct more precise of hotel industry, we rename perceived quality to service quality.

The aim of this study is to propose a Hotel Customer Satisfaction Index (H-CSI) for international tourist hotel by adapting the ACSI model and integrating the consumption emotion element. The rest of this paper is structured as follows. Section 2 describes the construction of H-CSI model and research hypotheses. Section 3 describes the measurement scales and the way for collecting sample. Section 4 shows the analysis results. Finally, section 5 presents discussion and concluding remarks.

## 2. H-CSI model

As illustrated in Figure 2, the proposed H-CSI model is adapted from the ACSI model that customer expectation element has excluded and includes the consumption emotion element and one relationship is introduced (from the consumption emotion to customer loyalty).

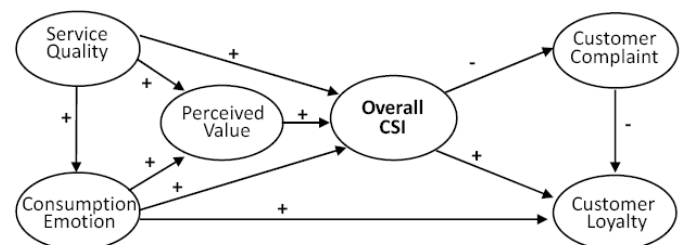


Fig. 2 The H-CSI Model

### 2.1 Service Quality

Service quality has been identified as a key factor in differentiating service products and in building a competitive advantage of the service sector. SERVQUAL is a service quality assessment instrument developed by Parasuraman, Zeithaml and Berry, (1988:12) and includes five dimensions: tangibles, reliability, responsiveness, assurance, and empathy. SERVQUAL has been successfully applied in the hotel sector. Knutson, Stevens, Wullaert, Patton and Yokoyama (1990) adapted the SERVQUAL dimensions and developed an instrument LODGSERV for assessing the service

quality of lodging industry. In LODGSERV, reliability is the most important element. On the other hand, Kandampully and Suhartanto (2000:4) stated that customer satisfaction of housekeeping was found to be the only significant factor that affected customer loyalty. Reception, food and beverages, and prices were regarded as supporting factors of customer retention. This result is consistent with Min and Min (2005) who indicated the cleanliness of guest rooms is an impressed service attributes of service quality. Since hotel service is a major people-delivered service, ensure service reliability as promise is one of important attributes during the service deliver process in hotel.

Nowadays, hotel managers continuously provide and improve the customization service to meet customer requirement and achieve competitive advantage. These customization services are greater amenities, comfortable rooms, fast check-in/check-out, courteous treatment, and high speed internet. Customization service is the endeavor that hotel provides its service that can fulfill the changing needs and lifestyles of customers. Thus, no matter general or customized service, service quality definitely affects customer satisfaction and consumption value. Customer satisfaction can be secured by high quality services (Getty & Getty, 2003; Tsang & Qu, 2000). Therefore, the service quality is an antecedent factor of customer satisfaction.

In the proposed H-CSI model, the first determinant of customer satisfaction is perceived service quality and is expected to have a direct and positive effect on customer satisfaction (Cronin & Taylor, 1992; Terblanche & Boshoff, 2010:5). This prediction is intuitive and fundamental for all service encounters. Furthermore, service quality should have a positive relationship with consumption emotion (Han & Back, 2006; Mattila & Enz, 2002:6) and perceived value (Fornell et al., 1996; Whittaker, Ledden & Kalafatis, 2007; Wu &

Liang, 2009). Based on above descriptions, this research makes three research hypotheses as following.

**H1:** Perceived Service quality is positively related to customer satisfaction.

**H2:** Perceived Service quality is positively related to perceived value.

**H3:** Perceived Service quality is positively related to consumption emotions.

## 2.2 Consumption Emotion

Each emotional experience is influenced by environment and represents the customer's actual perceptions and feelings of service product. The service delivering process of hotel has the characteristic of high degree interaction between employees and consumers (Lewis & McCann, 2004). Customer emotions are frequently influenced by the actions and services of front-line employees (Mattila & Enz, 2002). Barsky and Nash (2002:8) indicated consumption emotions play an important role in the hotel selection decision of customer. Therefore, many hotel providers notice this issue and begin to design service for affecting guest positive emotion (Jang & Namkung, 2009). The attributes in service deliver process (impressive architecture, tangible environment, front-line service etc.) affect customer emotions that are generated after customer has positive or negative experiences (Havlena & Holbrock, 1986). Lack of positive emotions is one of the important reasons for consumers decide not to stay or revisit hotel that they had visited. Consumption emotions are created through experiences about whether hotel products and services satisfy customer real needs and play a role that affects customer's selection of hotel (Barsky and Nash, 2002:4). Furthermore, Barsky and Nash (2002:2) indicated the consumption emotional responses can enhance the understanding of customer satisfaction and predict customer loyalty. Base on the literature reviews, consumption emotion is an antecedent of customer satisfaction (Han, Back

& Barrett, 2009; Jang & Namkung, 2009; Mano & Oliver, 1993; Oliver, 1993; Westbrook & Oliver, 1991) and has a positive relationship with perceived value (Laverie, Kleine & Kleine, 1993:3) and loyalty (Allen, Machleit & Kleine, 1992; Barsky & Nash, 2002; Jang & Namkung, 2009). Based on above descriptions, this research makes three research hypotheses as following.

**H4:** Consumption emotion is positively related to perceived value.

**H5:** Consumption emotion is positively related to customer satisfaction.

**H6:** Consumption emotion is positively related to customer loyalty.

### 2.3 Perceived Value

Holbrook (1996) defined customer value as an interactive relativistic preference experience. Customers' overall assessment of the utility of a product based on perceptions of what is received and what is given (Zeithaml, 1988:12). In simple terms, perceived value is based on the trade off of perceived cost and perceived quality. The essence of consumption value is the personal feeling of empowerment derived from comparing and selecting goods or services. Anderson and Fornell (2000:5) indicated that adding perceived value to the CSI model increases the comparability of results across firms, industries, and sectors. Cronin, Brady and Hult (2000) show there is positive relationship between the perceived value and customer satisfaction. Therefore, the perceived value is an antecedent factor of customer satisfaction. Therefore, this research makes a research hypothesis as following.

**H7:** Perceived value is positively related to customer satisfaction.

### 2.4 Complaint

Customer complaint is generally considered to be a set of multiple responses arising out of purchase dissatisfaction (Singh, 1988). Good complaint handling can increase satisfaction with recovery and

consequently increase positive word-of-mouth (Maxham & Netemeyer, 2002:1). The relationship between the level of customer satisfaction and the level of customer complaints depends on the unsatisfied customers' behaviors. If the customer complain can be efficiently handling, the firm may increase customer satisfaction and turn complaining customers into loyal customers (Fornell, 1992). In the exit voice theory of Hirschman (1970), he indicated the immediate result of an increased customer satisfaction will significantly decrease customer complaints. Therefore, this research makes a research hypothesis as following.

**H8:** Customer satisfaction is negatively related to customer complaint.

### 2.5 Loyalty

Loyalty implies repeat purchasing base upon cognitive, evaluative and dispositional factors that are the classic primary components of an attitude (Jacoby, 1971). For a hotel, loyal customers are the most profitable types of customers since they tend to repeat the purchase of hotel's services. Furthermore, loyal customers represent a source of positive word-of-mouth advertising (Knutson, 1988). In many customer satisfaction related researches, customers' retentions and recommendations are indicated as crucial factors that highly affect the success of hotel business (Hallowell, 1996; Kandampully & Suhartanto, 2000).

Numerous researches indicated that an increase in customer satisfaction is important for company to ensure customer loyalty (Barsky, 1992; Smith & Bolton, 1998:5; Hallowell, 1996:6). It is believed that loyalty customers will repeat the purchase and give favorable word-of-mouth advertising (Fornell, 1992; Zeithaml, Berry & Parasuraman, 1996). Therefore, customer satisfaction is widely recognized as a key influence in the formation of future purchase intentions (loyalty). Developing loyalty among customers definitely is one of main operational strategies used by hotels to face present

increasing industry competition. For the consequences, as relationship shows in the ACSI, loyalty increase and customer complaint decrease when customer satisfaction increased (Fornell et al., 1996:2). Therefore, this research makes two research hypothesis as following.

**H9:** Customer satisfaction is positively related to customer loyalty.

**H10:** Customer complaint is negatively related to customer loyalty.

### 3. Measurement scales

The scale items of proposed H-CSI are designed by mainly employing the questionnaire of ACSI study. In designing the questionnaire, a 10-point Likert scale which “1” means strongly disagree and “10” indicates strongly agree is used to reduce the statistical problems of extreme skewness (Fornell et al., 1996). In the scale items of perceived service quality construct, this research directly applies ACSI questionnaire that are (1) the hotel offering is customized to meet customer needs, (2) the hotel offering is same as its promise and (3) overall perception of service quality (Fornell et al., 1996:3). For perceived value, this research directly applies two components of perceived value in ACSI questionnaire that are (1) price relative to given quality and (2) quality relative to given price (Fornell et al., 1996:4). This research refers Differential Emotions Scale (DES; Izard, 1977) to develop the items of consumption emotion. Consumption emotions are the responses of perceived service or delivering process and have two kinds of emotion: positive and negative. Based on DES, this study call a focus group meeting that several experts who own plentiful experience of hotel had attended. After discussion of focus group, the generated scale items of consumption emotions are (1) I feel amazing in consumption process, (2) I feel comfortable in consumption process, and (3) I feel disappoint in consumption process.

The customer satisfaction level represents a cumulative and post-purchased evaluation of a hotel’s offering services. The assessment level of customer satisfaction is a fundamental indicator of the firm’s past, current and future performance and has a significant influence on firm’s operation and profitability. Customer satisfaction is the core of proposed H-CSI model and ACSI model. It was operationalized through three scale items that are (1) an overall rating of satisfaction, (2) rating the hotel performance falls short or exceeds expectation, and (3) rating of satisfaction compared with customer’s ideal requirement of product/service (Fornell et al., 1996:4).

Customers may feel dissatisfied with a specific transaction and finally may make complaints. The scale item of customer complains construct is “Had customer complaint either formally or informally when they were dissatisfied with the product/service”. The scale items for measuring customer loyalty are (1) the customer revisit intention, (2) the customers’ intention to recommend the hotel to others, and (3) the price tolerance level of hotel (Fornell et al., 1996:4).

The primary questionnaire is pre-tested by 30 customers who have stayed in one of ITH in Hsinchu city, Taiwan. In the pilot run of survey, this research tries to ensure the reliability of the survey questionnaire and to change some wordings that were ambiguous or misleading in the H-CSI questionnaire.

### 4. Data collection and analysis method

The questionnaire survey sites for this study are the lobby of departure building in Taiwan Taoyuan international airport and the public parking lots of international tourist hotel (ITH). The respondents of questionnaire survey are who have the staying experience of ITH in Taiwan. The staying experience must be happened in last month. The sampling method applied in this survey was

convenience sampling. The respondents would be surveyed using an on-site intercept manner with a free gift. Finally, 650 customers were invited to complete questionnaire and 412 effective samples were obtained in this study. The gender characteristic of the respondents is male 52.6% and female 47.4%.

This study use Partial Least Square (PLS) to conduct path modeling estimate. PLS is particularly famous because it's successful applications in customer satisfaction analysis. Both the ACSI and the European Customer Satisfaction Index (ECSI) are constructed by using PLS path modeling. Barclay, Higgins and Thompson (1995) suggested the PLS optimization is more suitable to predictive applications and theory development for model research. With PLS analysis results of CSI model, the accurate path coefficients, researcher can answer questions such as why customers are satisfied or dissatisfied and how to improve customer satisfaction (Hsu, Chen, & Hsieh, 2006:14). Moreover, PLS is a useful tool for model research when research objectives are obtaining indicator weights and producing predictions of the latent variables.

## 5. Results

By using 412 valid sample data, this research has analyzed proposed H-CSI model by using PLS estimation approach and SmartPLS 2.0 software. This study first conducted confirmatory factor analysis (CFA) with PLS to estimate the validity and the reliability of the constructs and all items in H-CSI model. After model validity and the reliability has confirmed, the estimated weights of customer satisfaction scale items can be used to construct the H-SCI score.

In PLS, individual item reliability is assessed by examining the factor loading of the manifest variables with their respective construct. A rule of thumb employed by many research is that accept

item's reliability when factor loading is 0.7 or more. In such circumstance, there is more shared variance between the latent variables and its measure than error variance (Carmines & Zeller, 1979). Further, the reliability presents internal consistency of all indicators in relation with the construct and can be determined by the measure of Further ( $\rho_c$ ). Composite reliability score is superior to Cronbach's Alpha measure of internal consistency since it uses the item loadings obtained within the casual model (Fornell and Larcker, 1981). The acceptable threshold of Composite reliability is 0.7 or more (Nunnally, 1978). The reliability of each construct and items are presented in Table 1. All reliability measure values exceed the acceptable threshold.

Table 1 H-CSI reliability

Construct	Loadings	Composite reliability ( $\rho_c$ )
<i>Service quality</i>		0.93
SQ1/SQ2/ SQ3	0.91/0.84/0.93	
<i>Consumption emotions</i>		0.93
CE1/CE2/CE3	0.91/0.91/0.88	
<i>Perceive value</i>		0.96
PV1/PV2	0.95/0.96	
<i>Customer Satisfaction Index</i>		0.90
CS1/CS2/CS3	0.79/0.90/0.89	
<i>Customer complaints</i>		1
CC1	1	
<i>Customer loyalty</i>		0.91
LYT1/LYT2/LYT3	0.92/0.93/0.80	

When multiple measures are used for an individual construct, the researcher should not only concern with individual item reliability but also with convergent validity. Convergent validity of the construct can be examined by its Average Variance Extracted (AVE). A construct's AVE should be at least higher than 50% to guarantee more valid variance explained than error in its measurement (Fornell, 1992). In H-CSI model, the AVE scores of SQ, CE, PV, CSI, CC, and LYT are 0.81, 0.81, 0.92, 0.74, 1, and 0.78, respectively (Table 2).

Table 2 H-CSI Discriminate validity

Constructs	SQ <sup>a</sup>	CE	PV	CSI	CC	LYT
SQ	0.81					
CE	0.73	0.81				
PV	0.66	0.59	0.92			
CSI	0.72	0.67	0.67	0.74		
CC	0.76	0.68	0.62	0.67	1	
LYT	0.73	0.64	0.71	0.73	0.70	0.78

<sup>a</sup> SQ (perceived service quality), CE (consumption emotion), PV (perceived value), CSI (customer satisfaction index), LYT (customer loyalty) and CC (customer complaint)



Discriminate validity represents the extent to which measures of a given construct differ from measures of the other constructs. Fornell and Larker (1981) argue the AVE should be superior to the squared correlation between constructs. Table 2 shows the correlation between constructs and the AVE in diagonal. After examining the results, all constructs have adequate discriminate validity.

For the results showed in Table 1 and 2, the proposed H-CSI model has adequate validity and good internal consistency. This consequence implies that the measurement items of each latent variable can measure them well and all six constructs are both conceptually and empirically distinct from each other. Further, the confirmatory measurement of model shows the soundness of its measurement properties.

Next, this research has assessed the path estimate of the H-CSI model. Figure 3 shows ten path estimates correspond to ten research hypotheses. Each path coefficients is attained by the bootstrapping computation of  $R^2$  and  $t$ -value for each hypothesis. In PLS-SEM, the estimated structural model of the interrelationships between the independent latent variables and the dependent variables need to validate before researcher conclude that the predicted values from the model can accurately predict the responses. Maximization of variance explained for dependent variables is the primary objective of PLS and can be measured by the  $R^2$  values of structure model. Because all path estimates are statistically significant then the predictive capability of the H-CSI model is satisfactory (Figure 3).

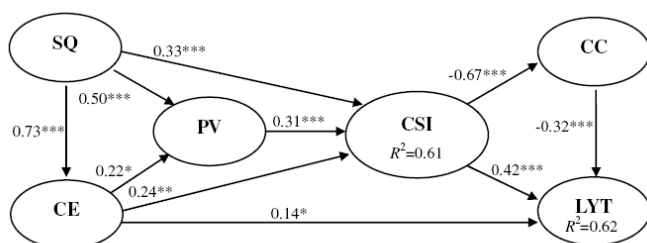


Fig.3 Path estimates of the H-CSI Model (\* $t > 1.96$ , \*\* $t > 2.58$ , \*\*\* $t > 3.30$ )

As path coefficients showed in Figure 3, Service quality has a positive effect on consumption emotions ( $\beta = 0.73, t = 9.90$ ), perceived value ( $\beta = 0.50, t = 5.67$ ), and customer satisfaction ( $\beta = 0.33, t = 4.35$ ). Therefore, research hypothesis 1, 2 and 3 are supported. Perceived value has a positive effect on customer satisfaction ( $\beta = 0.31, t = 4.58$ ). This result makes hypothesis 4 accept. Consumption emotions has a positive effect on perceived value ( $\beta = 0.22, t = 2.16$ ), customer satisfaction ( $\beta = 0.24, t = 2.91$ ), and customer loyalty ( $\beta = 0.14, t = 2.09$ ). Thus, hypothesis 5, 6 and 7 are supported. Accordingly, above analysis results showed each of antecedent constructs has reasonable explanatory power on H-CSI. Further, service quality has greatest impact on H-CSI.

Customer satisfaction has a positive effect on customer loyalty ( $\beta = 0.42, t = 5.08$ ) and a negative effect on customer complaint ( $\beta = -0.67, t = 7.77$ ). Thus, these results make hypothesis 8 and 9 accept. Moreover, this research examined path relationship between customer complaint and customer loyalty. The path coefficient is negative and statistic significant ( $\beta = -0.32, t = 5.08$ ). Thus, hypothesis 10 is supported.

Fornell et al., (1996) indicated that ability of explaining important latent variables in the model can present model's performance, especially overall CSI and loyalty variables. In the presented H-CSI model, The  $R^2$  measure of customer satisfaction and customer loyalty is 0.61 and 0.62, respectively. These results mean that H-CSI model fits the data well and can be used to help improve customer satisfaction in hotel industry. For obtaining a single Index score of the H-CSI, this research adopted the formula had presented in the reference of Fornell et al., (1996) and presented as formula (1). The H-CSI score for this research sample is 79 (for 0-100 scale) which calculated by  $w_i$  ( $w_1 = 0.32, w_2 = 0.42, w_3 = 0.42$ ) and  $\bar{x}_i$  ( $\bar{x}_1 = 8.15, \bar{x}_2 = 8.13,$

$\bar{x}_3 = 8.07$  ). This score imply the customer satisfaction of Taiwan international tourist hotel is just better than fair and still has the room for improving.

$$H - CSI = \frac{\sum_{i=1}^3 w_i \bar{x}_i - \sum_{i=1}^3 w_i}{9 \sum_{i=1}^3 w_i} \times 100 \quad (1)$$

Where  $w_i$  is the estimated weight for  $i$  scale item of customer satisfaction,

$\bar{x}_i$  is the average perception of  $i$  scale item of customer satisfaction.

## 6. Discussion and conclusion

This research develops a novel customer satisfaction index for hotel industry which adapted the ACSI model and integrated the consumption emotion element. The H-CSI model is a structural equation modeling (SEM) which consists of well-established theories and approaches in customer behavior. This model also allows the hotel manager to understand the specific factors that significantly influence overall customer satisfaction by regarding the casual relationship in the H-CSI model.

From the results of the H-CSI model, this research confirms that consumption emotion makes a positive impact on customer loyalty, customer satisfaction, and perceived value. Consumption related emotions are important components of consumer responses and are significant factors for understanding consumer behaviors. Accordingly, eliciting superior emotional responses from customers during their hotel stay is critical to a hotel's success. Customer that has high level emotional experiences for hotel is willing to pay more and may have lower price sensitivity. Moreover, customer satisfaction is mostly effected by service quality. Therefore, the hotel managers

should pay more attention to customer emotional experience controlling, customization service deigning and superior service quality delivering. Also this research result shows that customer satisfaction is most important factor for enhancing customer loyalty. As previous references' conclusions, loyalty customer has stronger retention, positive word-of-mouth and is crucial to the success of hotel business.

For practical implementation, the proposed H-CSI can be a tool for collecting information to formulate hotel competitive strategy. Furthermore, the independent and uniform measurement characteristics of the proposed H-CSI model provide a useful tool for tracking performance and systematic benchmarking over time. By executing the proposed H-CSI survey, international tourist hotel manager can understand the present hotel's customer satisfaction performance and the hotel's competitive position among competitions, Moreover, by the analysis results of H-CSI survey, international tourist hotel manager can well handle customer satisfaction management issues and to achieve a competitive advantage. For academic implementation, the casual relationships of perceived service quality, consumption emotion, perceived value, customer satisfaction, customer complaint and customer loyalty in the proposed H-CSI model can be referred in future research of customer satisfaction related issue. In addition, the proposed H-CSI provides researchers with a parsimonious measure of customer satisfaction that can be used to investigate the relationships between customer satisfaction and its possible antecedents and outcomes.

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# 行政院國家科學委員會補助國內專家學者出席國際學術會議報告

100 年 6 月 16 日

附件三

報告人姓名	鄧維兆	服務機構 及職稱	中華大學 休閒遊憩規劃與管理學系 教授
會議 時間 地點	100 年 6 月 15 日至 6 月 19 日 美國洛杉磯 Beverly Hilton Hotel	本會核定 補助文號	NSC99-2410-H-216-006
會議 名稱	(中文)國際企業、財務與經濟研究研討會 (英文) The International Business, Finance & Economics Research Conference, Los Angeles		
發表 論文 題目	(中文) 餐旅品質管理文化量表建置之引導研究 (英文) Development of the Hospitality Quality Management Culture Scale: A Pilot Study		

報告內容應包括下列各項：

## 一、參加會議經過

- 本人於 6 月 15 日到達美國洛杉磯後，便直接進入住宿旅館休息。
- 6 月 16 日 1400 參加大會辦理之 Independent Research Meeting- I。由 Dr. Turan Senguder 主持，會中主要是作參與者之相互認識，並做個人研究領域之介紹。
- 6 月 17 日
  - 0900~1200 參加第一場 Session，聆聽六篇論文之發表並上台發表自己的論文。
  - 1200~1230 聆聽了第一場 Keynote speech，由 Dr. Jude E. Edwards 演講。
  - 1230~1400 享用午餐。
  - 1400~1730 參加第二場 Session，聆聽七篇論文發表。
- 6 月 18 日 1400 參加大會辦理之 Independent Research Meeting- II。由 Dr. Jean Gordon 主持，共同研討當今國際企業、財務與經濟研究之議題及相關重要成果。
- 6 月 19 日搭機返回台灣。

## 二、與會心得

參加此次國際企業、財務與經濟研究研討會，讓個人除了在服務品質專業領域之外，亦吸收到國際企業、財務與經濟相關研究的最新研究課題，對於本人爾後在於企業經營相關服務品質研究上，可朝更多元面向來發展研究。會議中與各國學者(美國、加拿大、澳洲、越南、韓國、泰國、紐西蘭等)共同學習研討與交換研究心得。可謂是非常有收獲的一次學習之旅。

## 三、考察參觀活動(無是項活動者省略)

無考察參觀活動。

四、建議

無。

五、攜回資料名稱及內容

1. conference proceeding

六、其他

# Development of the Hospitality Quality Management

## Culture Scale: A Pilot Study

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### ABSTRACT

This research describes the development and validation of a 19-item instrument (hospitality quality management culture scale, HQMCS) for assessing corporate quality management culture in hospitality organizations. Two studies were conducted to develop the final scale items, and to evaluate the scale's reliability and validity. Two core dimensions of quality management culture are identified. The HQMCS has a variety of potential applications and can serve as a framework for further empirical research in service management or organization management.

**Keywords:** Quality management culture, scale, hospitality, international tourist hotel.

### INTRODUCTION

The more special difference between service industry and others industry is the compact intricate relationship between employee and customer. Employee completes service delivering that is part of service product. Customers consume such service product and finally assess the service quality and consuming values. Some time customers even are participators of service production. In such circumstance, there is no chance that employee can correct service failures without customer's awareness. Therefore, by source management viewpoint, every service enterprise really needs to make endeavor of employee management in service system to pursue the competitive advantage of excellent service quality and customer satisfaction.

The performances of front-line employee dramatically affect service quality and customer satisfaction (Mohr and Bitner, 1995). Many researchers emphasized the importance of customer-contact employees in creating and providing good service quality (Bitner et al. 1990; Hartline & Ferrell, 1996; Kelley & Hoffman, 1997). Tsauro and Lin (2004) indicated service quality depends on the performance of interactive result between employees and customer. Heskett et al. (1994) presented a Service-Profit Chain theory that had emphasized the critical role of employee's performance in pursuing customer satisfaction. The good performances of front-line employee deeply depend on their service attitudes and service behaviors. Constanti and Gibbs (2005) attribute a critical role to the perceived attitude and behavior of front-line staff in service delivery. Ahearne et al. (2007) indicated that salesperson service behaviors are important in building trust and customer satisfaction.

An organization's culture can be viewed as a pattern of shared values and beliefs that help its members understand organizational functioning and provide them norms for behavior in the organization (Dwyer et al., 2003). Robbins (2000) indicates corporate culture can form corporate members' attitude and behavior. Consequently, corporate culture especially quality management culture, definitely affect employees' working attitude and behavior and sequentially affect service quality and customer satisfaction. Therefore, when manager try to make endeavor of service quality and customer satisfaction improvement, corporate quality management culture definitely is the critical management topic in present service management and organization management.



Tourism appears as the world's most important service industry, both by number of employees and by the effects it has on the social and economic development of regions and countries (Holjevac, 2003). Balaguer and Cantavella-Jorda (2002) indicated proceeds that generated from tourism expansion can represent a significant income source for a national economy. Therefore lots of nations had developed tourism industry hardly. The hospitality industry plays an important role in tourism industry (Claver-Cortés et al., 2006). Today, hospitality industry which includes the restaurant, accommodation, entertainment and transportation businesses (Brotherton, 1999; King, 1995) faces increasing competition in global marketplace environment. Therefore, every managers of hospitality industry work hard for achieving competitive advantage of excellent service quality and customer satisfaction. In the improvement task of service quality and customer satisfaction, improving quality management culture of corporate definitely is an effective approach since culture affects corporate member's attitude and behavior obviously. But there are very few researches had discussed about quality management culture issue or developed a quality management culture scale.

To address the need for a quality management culture scale that is tailored to measure hospitality corporate quality management culture presentation, this research develops an instrument called the hospitality quality management culture scale (HQMCS). The research scope limits in international tourist hotel only since this is a pilot study. The respondents for validating quality management culture scale are the front-line employees in international tourist hotel. Consequently, The HQMCS proposed by this research can be used in understanding the present corporate quality management culture and in pinpointing the possible improvement directions that required more managerial attention and action to pursuit competitive advantage of excellent service quality and customer satisfaction in hotel industry. Moreover, researchers can use this pilot scale result under other hospitality industry scopes to build up a complete hospitality quality management culture scale.

## **QUALITY MANAGEMENT CULTURE COMPONENTS**

Dwyer et al. (2003) gave the definition of culture as that which is shared, and as consisting of both cognitive values/beliefs and behavioral norms. Shih (1993) indicates corporate culture is the most important property for nowadays corporate operation management. Barney (1986) indicates good corporate culture is important resource for attaining sustainable competition advantage. About relationship between corporate culture and operation performance, many researches show that corporate culture significantly affects operation performance (Bettinger, 1989; Denison, 1990; Grey and Gelfond, 1990; Kotter and Heskett, 1992; Gordon and DiTomaso, 1992; Deshapande et al., 1993). In the research of Detert et al. (2003), they develop and validate a survey instrument for measuring the culture of Quality Management (QM) in K-12 educational settings. The survey instrument includes nine dimensions (shared vision, customer focus, long-term focus, continuous improvement, teacher involvement, collaboration, data-based decision-making, system focus and quality at same cost) and has thirty-one statements. In quality management field, no matter in which industry type, Total Quality Management (TQM) is a fundamental quality management frame system (Byrne, 1992; Luthans, 1995; Saylor, 1992). Chandler and Mcevoy (2000) indicated that the TQM system effectively be executed will improve company's competitive advantage. Therefore, in corporate quality management culture, TQM is definitely an important component. Furthermore, this research also refers the research of Detert et al. (2000) that deeply describes relationship between corporate culture and total quality management

Deming's fourteen principles are extensively applied in corporate management. It informs corporate leader that continuous improvement of quality is important and necessary. These management concepts should keep in the mind of

corporate managers and transfer into corporate culture. Therefore, in the scale statements development of corporate quality management culture, Deming's fourteen principles also are referred. In service industry, operation management of product production is named as service management. The characteristics of service product are intangibility, inseparability, heterogeneity and perishable (Zeithaml and Bitner, 2000). The production management jobs of service industry are much different and difficult for managing than manufacturing industry. Beside, bad service management can cause service failures, bad service quality and low customer satisfaction. Therefore, the concepts of service management also must include into the component of quality management culture.

In summary, there are three components need to integrate into the component of corporate quality management culture and are TQM, Deming's fourteen principles and service management.

### THE SCALE DEVELOPMENT PROCESS

The first step in the development of any scale is to construct a sound conceptual specification of the construct being scaled (Churchill, 1979). Based on the above paragraph, the conceptual framework for the HQMCS has three necessary components those are TQM, Deming's fourteen principles and service management. The five basic elements to a basic understanding of TQM are (1) communication, (2) cultural transformation, (3) participative management, (4) customer focus, and (5) continuous improvement (*Richardson, 1997*). *These five* basic elements are treated as first part of design dimensions. The Deming's fourteen principles and the characteristic of service management are treated as other parts of design dimensions. Finally, there are ten design dimensions (Goal & vision, customer focus, long-term focus, continuous improvement, employee involvement, collaboration, data-based decision-making, system focus, cost-oriented and encouragement) for developing quality management culture scale's statements finally.

The steps employed in constructing the HQMCS closely parallel the scale development guidelines provided by DeVellis (1991) and Hinkin, et al. (1997). There are seven steps for constructing scale:

1. Item Generation;
2. Content Adequacy Assessment;
3. Questionnaire Administration;
4. Factor Analysis;
5. Internal Consistency Assessment;
6. Construct Validity;
7. Replication.

In first three steps, this research based on above ten design dimensions and generated an initial pool of twenty scale statements capturing corporate quality management culture. To help identify and capture more specific facets of corporate quality management culture, focus group with 6 experts is conducted. The initial pool of twenty scale statements capturing corporate quality management culture is discussed and reworded by focus group to fit the context of the hospitality industry. Additional four scale statements are generated in the focus group. Finally, initial twenty-four scale statements those tapped the entire spectrum of TQM, Deming's fourteen principles and service management are finished. Most of statements are phrased positively and are scored on a seven-point Likert scale, ranging from "Strongly disagree (1)" to "Strongly agree (7)". The questionnaire comprised two parts. The first part contained 24 statements reflecting agreement degree of quality management culture. The respondents are asked to rate their levels of agreement in relation to the 24 statements. The second part of the questionnaire included the demographic information of respondent.

In step 4 to step 6, the major jobs are scale purification, scale reliability and scale validity. Step 7 is a job content that researcher repeats the scale-testing with a new data set to validate the scale again. Therefore, this research planned two studies for developing HQMCS. The first study focused on: (1) examining the reliability of the scale and refining the pool of items, and (2) primarily identifying the underlying dimensions of the scale and refining the pool of items. The second study sought to confirm the validity of the refined scale by analyzing a new data set obtained from another survey. The respondents of this research survey are employees of international tourist hotel in Taiwan.

## FIRST STUDY

After connecting with human resources director of Taiwanese international tourist hotels, there are total 29 hotels had will to help our first study survey. The survey method used in this study is mail questionnaire survey. After excluding questionnaires with missing values, 376 valid and usable questionnaires were retained for analysis. There are total 115 managers and 261 employees had participated in this first study.

In the beginning of scale refinement, Churchill (1979) suggested that the purification of a measurement instrument should begin with the computation of the coefficient  $\alpha$ . Items with corrected item-to-total correlation lower than 0.35 were discarded (Parasuraman et al., 1988). Moreover, if item is deleted will increase the whole scale's Cronbach's  $\alpha$  value then it should delete from scale. As individual items were deleted, each Cronbach's  $\alpha$  value was recomputed for the remaining items and the new corrected correlations were evaluated for further deletion of items. After computing the corrected item-to-total correlation for 24 items, there are no item was deleted from the analysis in first round ( $\alpha$  value of whole scale is 0.953). Therefore, no item was deleted in this analysis stage.

A total of 24 items were retained for further unidimensionality examination. Exploratory factor analysis (EFA) was performed to identify and confirm the underlying structure of the items and to further reduce their number. The Kaiser–Meyer–Olkin (KMO) measure and Bartlett's test of sphericity were used to ensure that the data had inherent sufficient correlations to perform EFA. In EFA analysis of this study, the principal component analysis with varimax rotation, eigenvalue exceeding 1 and factor loadings exceeding 0.5 are used and set. The KMO index of EFA analysis under 24 items was 0.947, and Bartlett's test of sphericity was significant at a level of 0.00( $\chi^2=6270.85$ ), which justified the use of EFA.

The first round of factor analysis was resulted in a three factors solution, which explained 61.66% of variance. To achieve a more meaningful solution, items were deleted if they loaded equally heavily into more than one factor, and their loadings were smaller than 0.5, in consideration of the small sample size (Hair et al., 1998). Each time items were deleted from the analysis, the factor analysis was re-run and coefficient  $\alpha$  was re-computed until a satisfactory result was achieved. In first round, Item number 12 was deleted because their factor loading were smaller than 0.5. Item number 12 and 19 were deleted because these items loaded equally heavily into more than one factor (Table 1). However, Item number 12 (Hotel manager pay much attention to and personally involve with quality improvement task) is a very important element of TQM and is kept in questionnaire for later confirmation. Therefore, total 1 item were deleted in the EFA analysis. The process of scale purification in this initial stage reduced the number of items from 24 to 23 items. Among these 23 items, the factor analysis extracted three factors which explained 62.05% of variance with item loadings exceeding 0.5 (Table 2). Cronbach's  $\alpha$  value for each dimension ranged from 0.8135 to 0.9258. This demonstrates that the scales had considerable reliability (Cronbach's  $\alpha$  value for each dimension greater than 0.7) (Hair et al., 1998; Nunnally, 1978).

Table 1 Refinement results of factor analysis in first round

Item number	Factor loading		
	1	2	3
1	.701		
2	.760		
3	.769		
4	.636		
5	.649		
6	.681		
7	.564		
10	.667		
11	.601		
14		.503	
15		.627	
16		.701	
17		.665	
18		.641	
19 <sup>b</sup>		.526	.524
21		.518	
22		.773	
23		.781	
24		.532	
8			.723
9			.658
12 <sup>a,b</sup>		.467	.485
13			.672
20			.634
Variance explained (%)	23.56	22.81	12.59

Note: <sup>a</sup>Indicate that the item was deleted because its low factor loading

<sup>b</sup>Indicate that the item was deleted because its multiple loading

Table 2 Refinement results of factor analysis in second round

Item number	Factor loading			Variance explained (%)	Cronbach's $\alpha$ value
	1	2	3		
3	.771				
2	.763				
1	.686				
6	.677				
10	.664			24.62	0.9258
5	.655				
4	.647				
11	.626				
7	.574				
23		.792			
24		.778			
16		.707			
17		.673			
15		.628		22.76	0.9088
18		.625			
22		.549			
21		.533			
14		.525			
8			.749		
13			.689		
9			.672	14.67	0.8135
20			.594		
12			.573		

## SECOND STUDY

In second study, author sought to confirm the validity of the refined scale by analyzing a new data set obtained from another survey. Using the 23-item HQMCS, sampling data were collected from respondents employed in Taiwanese international tourist hotels that did not promise to help first study of this research. There are 11 international tourist hotels change its mind to help second study of this research. A total of 178 available questionnaires were analyzed. There are 50 managers and 128 employees had participated in this second study.

Confirmatory factor analysis (CFA) with maximum likelihood estimation in LISREL 8.80 was utilized to examine the factor structure of the HQMCS. Research postulated a priori measurement model linking observed variables with latent factors, and then tested that model for its ability to fit the data using CFA. The fit of the measurement model for the data was based on the  $\chi^2$  statistic, standardized root mean square residual (SRMR), comparative fit index (CFI), and goodness-of-fit index (GFI). In the event that poorly fitting models emerged from the initial series of analyses, further model re-specification would be needed to improve the model fit based on standardized residuals and modification indices. Large standardized residuals and modification indices identified pairs of indicators in which the covariance was either over predicted or under predicted by the model. One of the two items was deleted based on redundant content, salience, or content that was ambiguous for determining its placement within the model. The CFA was then rerun to determine whether the modification resulted in an improved fit. This process was continued until a reasonable model was generated.

The initial estimation of the 23 item of two-factor structure emotional labor model did not generate a satisfactory result ( $\chi^2=927.72$ , SRMR=0.017, CFI=0.95, GFI=0.69). This indicated a poor fit between the sample data and the model. The data were subsequently subjected to a specification search as previously described. This search resulted in a final model consisting of 19 items (item 8, 9, 17 and 20 had been deleted), with 9 items loaded into the first factor, 8 items loaded into the second factor, and 2 items loaded into the third factor. The final model provided an improved and reasonable fit for the data ( $\chi^2=494.34$ , SRMR=0.013, CFI=0.97, GFI=0.91). Table 3 lists the dimension and attribute factor loadings and reliability scores. Two indicators with loadings ranging from 0.726 to 0.869 demonstrated that the HQMCS attributes were moderately strong measures of corporate quality management culture. In addition, the composite reliability for two factors were 0.95, and 0.97, respectively, which exceeded the recommended 0.70 (Hair et al., 1998; Nunnally, 1978), and therefore, evidenced the good internal consistency of the HQMCS.

Table 3 CFA results of HQMCS (n=178)

Dimension and attribute		Completely standardized loadings	Dimension/attribute reliability	Error variance
<i>First Factor</i>				
1	In setting department goals, department director consider the vision and goals of company	.869	.842	.17
2	I understand hotel's mission as it applies to my work	.847	.826	.17
3	The hotel's vision and goals guide my work	.850	.850	.14
4	After collecting and referring customers' needs and expectations, hotel begins to design hotel service products	.776	.713	.35
5	Hotel improves service product quality according with the comments of hotel customers	.800	.797	.28
6	The customer focus is focal principle in hotel's operation management	.770	.709	.36
7	When hotel introduce a major improvement program, hotel give it at least 3 years to plan period	.643	.600	.48

<i>Second Factor</i>			.97	
10	In hotel's service quality management, the continuous improvement system is designed and implemented	.726	.754	.20
11	My job includes the quality management job of hotel	.693	.637	.57
12	Hotel manager pay much attention to and personally involve with quality improvement task	.732	.737	.23
13	There is ongoing collaborative work across subject areas in this hotel	.744	.771	.14
14	I frequently discuss service job execution matter with colleagues from other department	.816	.767	.25
15	When I need other departments' assistances, I certainly can got its assistances	.798	.728	.29
16	Hotel will apply related data to support the feasibility of proposed plan	.833	.814	.19
18	When service fault happen, hotel will find the cause of fault and correct it	.775	.739	.28
21	Without increasing hotel budget, I can improve service quality of my duty job	.777	.715	.32
22	Hotel proposes and implements the system of employee encouragement	.823	.766	.24
23	For employee has excellent performance, hotel will encourage him/her appropriately and openly	.851	.817	.19
24	My department director equitably assess my work performance and finish the encourage or punish job by hotel related rules	.826	.787	.22

*Fit statistics*

$\chi^2=494.34$ , SRMR=0.013, CFI=0.97, GFI=0.91

Note: the number of attribute is the original item number

## CONCLUSIONS

In highly global and competitive marketplace, every service enterprise really needs to make endeavor of quality management in service system to pursue the competitive advantage of excellent service quality and customer satisfaction. The quality management culture of corporate finally affects employees' service attitude and service behavior in corporate. Furthermore, service quality and customer satisfaction are affected by front-line employees' service behavior and performance. Usually corporate with high positive quality management culture has employee who will work hard in quality improvement and will take more responsibility for presuming good service quality. Therefore, when manager try to make endeavor of service quality and customer satisfaction improvement, development of corporate quality management culture definitely is the critical management topic in present service management.

This research proposed a novel hospitality quality management culture scale to help hotel for understanding the present situation of its quality management culture. The HQMCS contains 19 measurement items that had been confirmed and also has high degree of validity and reliability. Furthermore, the HQMCS is most valuable when it is used periodically to track hotel's quality management culture and to pinpoint areas requiring more managerial attention and action for improving quality management culture.

Since research scope of this research was limited in hotel industry, this HQMCS requires further replication in different hospitality contexts to ensure its consistency and generalization. Therefore, researchers can apply this pilot HQMCS and propose a general hospitality quality management culture scale or apply this pilot HQMCS in the relationship study with quality management culture.

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# 國科會補助計畫衍生研發成果推廣資料表

日期:2011/10/24

國科會補助計畫	計畫名稱：國際觀光旅館顧客滿意度指標之建置—美國顧客滿意度指標與消費情緒整合觀點
	計畫主持人：鄧維兆
	計畫編號：99-2410-H-216-006- 學門領域：休閒遊憩
無研發成果推廣資料	

99 年度專題研究計畫研究成果彙整表

計畫主持人：鄧維兆		計畫編號：99-2410-H-216-006-				計畫名稱：國際觀光旅館顧客滿意度指標之建置—美國顧客滿意度指標與消費情緒整合觀點	
成果項目		量化			單位	備註（質化說明：如數個計畫共同成果、成果列為該期刊之封面故事...等）	
		實際已達成數（被接受或已發表）	預期總達成數（含實際已達成數）	本計畫實際貢獻百分比			
國內	論文著作	期刊論文	0	0	100%	篇	
		研究報告/技術報告	0	0	100%		
		研討會論文	0	0	100%		
		專書	0	0	100%		
	專利	申請中件數	0	0	100%	件	
		已獲得件數	0	0	100%		
	技術移轉	件數	0	0	100%	件	
		權利金	0	0	100%	千元	
	參與計畫人力（本國籍）	碩士生	1	0	25%	人次	
		博士生	1	0	50%		
		博士後研究員	0	0	100%		
		專任助理	0	0	100%		
國外	論文著作	期刊論文	0	1	100%	篇	已撰寫為期刊論文，並預計100年11月底投稿「south african journal of business management」SSCI 期刊。
		研究報告/技術報告	0	0	100%		
		研討會論文	0	0	100%		
		專書	0	0	100%		章/本
	專利	申請中件數	0	0	100%	件	
		已獲得件數	0	0	100%		
	技術移轉	件數	0	0	100%	件	
		權利金	0	0	100%	千元	
	參與計畫人力（外國籍）	碩士生	0	0	100%	人次	
		博士生	0	0	100%		
		博士後研究員	0	0	100%		
		專任助理	0	0	100%		

<p>其他成果 (無法以量化表達之成果如辦理學術活動、獲得獎項、重要國際合作、研究成果國際影響力及其他協助產業技術發展之具體效益事項等，請以文字敘述填列。)</p>	無。
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	成果項目	量化	名稱或內容性質簡述
科 教 處 計 畫 加 填 項 目	測驗工具(含質性與量性)	0	
	課程/模組	0	
	電腦及網路系統或工具	0	
	教材	0	
	舉辦之活動/競賽	0	
	研討會/工作坊	0	
	電子報、網站	0	
	計畫成果推廣之參與(閱聽)人數	0	

## 國科會補助專題研究計畫成果報告自評表

請就研究內容與原計畫相符程度、達成預期目標情況、研究成果之學術或應用價值（簡要敘述成果所代表之意義、價值、影響或進一步發展之可能性）、是否適合在學術期刊發表或申請專利、主要發現或其他有關價值等，作一綜合評估。

1. 請就研究內容與原計畫相符程度、達成預期目標情況作一綜合評估

達成目標

未達成目標（請說明，以 100 字為限）

實驗失敗

因故實驗中斷

其他原因

說明：

2. 研究成果在學術期刊發表或申請專利等情形：

論文： 已發表  未發表之文稿  撰寫中  無

專利： 已獲得  申請中  無

技轉： 已技轉  洽談中  無

其他：（以 100 字為限）

3. 請依學術成就、技術創新、社會影響等方面，評估研究成果之學術或應用價值（簡要敘述成果所代表之意義、價值、影響或進一步發展之可能性）（以 500 字為限）

For practical implementation, the proposed H-CSI can be a tool for collecting information to formulate hotel competitive strategy. Furthermore, the independent and uniform measurement characteristics of the proposed H-CSI model provide a useful tool for tracking performance and systematic benchmarking over time. By executing the proposed H-CSI survey, international tourist hotel manager can understand the present hotel's customer satisfaction performance and the hotel's competitive position among competitions. Moreover, by the analysis results of H-CSI survey, international tourist hotel manager can well handle customer satisfaction management issues and to achieve a competitive advantage.

For academic implementation, the casual relationships of perceived service quality, consumption emotion, perceived value, customer satisfaction, customer complaint and customer loyalty in the proposed H-CSI model can be referred in future research of customer satisfaction related issue. In addition, the proposed H-CSI provides researchers with a parsimonious measure of customer satisfaction that can be used to investigate the relationships between customer satisfaction and its possible antecedents and outcomes.