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J. Y. Hung, F. L. Lin, W. G. Yang, K. S. Lu: CONSTRUCT THE DESTINATION IMAGE FORMATION ...

## CONSTRUCT THE DESTINATION IMAGE FORMATION MODEL OF MACAO:THE CASE OF TAIWAN TOURISTS TO MACAO

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### **Abstract**

The investigation based on the vigorous tourism industry and open up the gaming industry in the future to promote and construct the nation competition strength in Taiwan. Tourism destination image is an important factor which tourist chooses and plans their tourism schedule. But the concept of image includes inner psychology motivation, external environment factor or these two factors interaction to develop and integrate model. Therefore, this investigation aimed to construct the destination image formation model of Macao and take the Taiwan visitors to Macao for example. According to the findings, Taiwan tourists who actually visited Macao generally report positive tourist image in overall. Furthermore, the overall image of tourists visiting Macao can be enhanced if consumers' return on investment and service superiority are conducted through experiential value perspective in terms of value/environment variables of Taiwan tourists' perception or cognition perspective. Finally, a tourism image of Macao perceived by Taiwan tourists is built upon an experience in integrated industry surrounded by luxury atmosphere. To feel about the casino culture of mirage among Asian cities, and a national image of sense and sensibility after combining Eastern and Western culture are primary tourism motives of the study.

**Keywords** Gaming industry, Tourism image, Experience value, Structural equation modeling

### **1. RESEARCH BACKGROUND AND PURPOSE**

Image is an important determinant for tourists to select a destination; however, the destination image is formed by an integration model covering both static and dynamic backgrounds which further developed after an interaction effect among internal psychological motives and external environment, and other factors. Furthermore, the process of image formation is complicated and diverse; including external factors such as image, cognition, motive, attraction and belief, and internal factors such as required time for travel, attraction of destination and perception cost and other variables to visitors.

Due to the open-up policy of gambling industry in Macao special administrative region, a differentiation in tourism and leisure industry in Macao is enabled by the hotels managed by Eastern and Western casino hotel groups. Besides, the revenues with regard to gambling industry comprised 55% GDP of Macao, but also exceeded Las Vegas in the U.S. and became the new-generation Casino; this has effectively marketed Macao to the world. The development process and the outcomes of tourism & leisure

industry in Macao of today report the same goal with “Project Vanguard for Excellence in Tourism” proposed by Tourism Bureau, Ministry of Transportation and Communications by coincidence – making Taiwan a nation of great power in tourism among the world in 2012, in which how to attract tourists and make them form positive tourism image, and further lead to a process of consumption at travel destination such as tourist motive, positive feedback on tourism, which all originated or developed from a positive relations between tourists themselves and the destination image, and even is one of the key success factors as of today for the building of tourism-oriented country image in overall within the government units which consolidate tourism policy issues among various countries, and the tourism marketing strategy with effect and intrinsic value constructed by various tourism suppliers.

After Taiwan is opened up to a visit in Macao special administrative region since 1997, Macao has ranked the top 3 tourism destination abroad by Taiwan visitors (around 18%, Tourism Bureau, Ministry of Transportation and Communications, 2009), only in the 3d place next to Hong Kong and Japan. Given a strong tourism image and an intention in actual visit to Macao between Taiwan visitors comparing to other Asian countries such as Korea, Singapore and Malaysia, there has no related academic and practice oriented study with regard to Taiwan tourists to Macao as of now, which can be provided as a reference to experts who operate or are specifically responsible for tourism management from the academy, government and industry fields in terms of establishment of another worth-referring tourism policy and marketing strategy that reports a practical contribution.

In an environment where an acute competition in tourism business of today, tourism destination image plays an important role in both visitors with actual travel experience and potential visitors and also plays a key role in revising the given image (Ahmed,1991). A survey of Taiwanese people’s attitude toward “gambling industry” related spending by pollster survey (2009) indicated a 53% with spending intention and a 46.9% without spending intention, representing two opposite viewpoints in between, which sufficiently revealed that there might be a significant difference existed between Taiwan visitors in terms of cognition of destination image formation of gambling industry. Given a phenomenon stated above, the study will construct the destination image model upon the visitors who visited Macao before, with destination image formation in various perspectives stimulated by external/external factors to further draw a conclusion on the system framework and with correlation and thread of thought that affect the overall tourism image of Taiwan visitors on Macao provided as a reference to the drafting and amendment of related marketing strategies or establishment of tourism image in the future.

Lastly, the various purposes of the study are consolidated as follow:

1. Construct the destination image model of Taiwan visitors to Macao.
2. Explore the primary determinants that form the destination image of Macao between Taiwan visitors, with the destination image model of the study verified further.

## **2. LITERATURE REVIEW AND HYPOTHESIS GENERATION**

### **2.1. Current development of gambling industry and asian casinos**

Gambling is to invest money or other valuable substances to one incident and uncertain outcome, to acquire/win value of money/substance spent in the very beginning; however, it has to bear a risk in certain level. The gaming industry nowadays is a tourism entity of diversity and integrity includes tourism & leisure industry which is jointly enabled by hotel, shopping center, dining, shuttle transportation, conference service, tourism industry and cosmetics industry, providing differentiated product contents, service consumers in different market segments and lifestyles, satisfying diverse needs at the same tourism location. Therefore, more entertainment and product creativity will be added on once tourism industry incorporates the gambling industry. It cannot combine with other homogeneous business once the gambling industry is released alone, this will by all means give up industry value implicitly contained in the gambling business and will make negative incidents that implicitly contained in the gambling industry expose with no doubt, making gambling industry repellent to the public psychologically.

In fact, betting reports the same nature with gambling but in different meaning, gambling is to get rid of its bad impression and the given negative social image to people in the past with a brand-new term given further, also, gambling refers to a betting business under severe surveillance and management, which can roughly be divided into casino and lottery. Currently, countries or regions that report legal gambling business or casino management include Macao, Malaysia, South Korea and Philippines, while Singapore has also opened up to casino management since 2006, in the future, a rise of gambling business consecutively among Thailand, Japan and India has caused a fervor in gambling among the entire Asia at once, an eager participation in “gambling” element or catalyst has speeded up the economies of scale of tourism industry in Asia and attract double tourists from the world to visit Asia. According to a forecast by Merrill Lynch, the operating income of casino in Asia in 10 years from now will be increased from current \$13.4m to \$44.8m, also, under the catalysis of a fervor in legal casino operation with gambling business allowed by various nations in Asia, there will be around 50 new legal casinos in Asia by 2012, in which 70% of them are 5-star casinos (with a forecast of up to \$1-3b spent on each casino).

Give a fact that Macao is where reports the earliest casino management, and also the only region in Asia that reports higher revenues than the Las Vegas of USA, in which the geographic location and the environment are mainly what drive the release of gambling business in Macao as it can only rely on tourism to earn foreign currency so as to enhance its GNP to keep its competitiveness in the world owing to the cramped land, small population, lack of resources and industrial development; up to now, Macao reports a leading position in gambling business in Asia, titled “the Monte carol of the Orient”, which is all because of a legitimacy of gambling industry in 1847 has opened a door for Macao to be the most significant region in gambling industry of Asia under the Portuguese Colonial Period, which has also led to a high dependency of Macao on incomes of gambling industry economically; The Macao Portuguese Government has once implemented a system of gambling licensing between 1851 and 1863, in which

the Macao government has also established strict and cautious law which regulates the management and actual operation of gambling business in a scurrilous manner, reporting a monopoly of gambling business in Macao for up to 40 years until a right of gambling business running is acquired by STDM (composed by Henry Fok and Stanley Ho from Hong Kong ) in 1961, in which Stanley Ho has even become King of Jackpot in Macao and is widely known among Asia regions.

In 2010, there were 667,910 Taiwanese tourists choosing Macao as their travel destination. In comparison with 739,263 people in 2009, the population slightly decreased but still took the fourth place among all destinations chosen by Taiwanese tourists. The reasons that Macao attracts Taiwanese tourists are its distinctive geographical location as well as prosperous tourism industry. The multi-historical and multi-cultural relics of Macau and casino business are the most prominent destination images for tourists who choose Macau as their destination (Choi, Lehto and Morrison, 2007). Tourism relies mostly on gaming industry in Macao (Hobson, 1995; Choi et al., 2007; Song and Witt, 2006). A similarity between backgrounds or reasons for gambling business development and that of the offshore Islands of Taiwan (Penghu, Kingmen or Ma-Tse) in many ways will support a discussion of forming factors of gambling business and tourism image of Taiwan people through a construction of tourism image model formation of Taiwan visitors going to Macao mentioned in this study.

## **2.2. Tourism image and forming factors**

Images are people's belief, impression and perception about things, behaviors or events (Crompton, 1979). Chang (2000) thinks that images are feelings or experiences for one certain past thing, i.e. reappearance of memory, even including one's impression and values. Image refers to an impression of destination to tourists, and also the description of overall image that tourists have in mind, and even an important factor that drives people's decision-making or cognition (Dichter, 1985), in which Baloglu & McCleary (1999) have proposed the image formation of destination upon previous documents, which mainly includes incentive factors and personal factors; Incentive factors refer to external tangible matters, stimulation of intangible idea and related experiences in the past received by the tourists, while personal factors refer to the characteristics of tourists themselves such as social/economic status, personality, tourism perception. Therefore, Baloglu & McCleary have found that tourists' image cognition of destination will normally be affected by travel motive, social demographics and different data source. MacKay & Fesenmaier (1997) considers that travel destination images are tourists' expectation for one destination and also impression resulting from an individual's beneficial travel and life experiences. In addition, people's faith, impression, and feeling for one certain sightseeing area together form a kind of overall concept for the destination (Chen, 2004).

Image is an important determinant for tourists to select a destination, however, the destination image is formed by an integration model covering both static and dynamic backgrounds which further developed after an interaction effect between internal psychological motives and external environment and other factors. The formation of travel destination image is a continuous process. Via different kinds of medium, for instance newspapers and magazines, TV commercials, or relatives and friends, tourists'

cognition of one travel destination might be increased or changed. According to Alhemoud & Armstrong (1996), in the continuous process of formation, one travel destination usually goes through three main stages: organic image, induced image, and complex image, that further influence tourists' travel behavior. Furthermore, the process of image formation is complicated and diverse; including external factors such as image, cognition, motive, attraction and belief, and internal factors such as required time for travel, attraction of destination and perception cost and other variables to visitors, in which the research hypotheses are proposed upon this in the study :

- H1: Tourists report a positive effect on the perception/cognition of travel destination via external information;
- H2: Tourists report a positive effect on travel location sentimentally via external information;
- H3: Tourists report a positive effect on the perception/cognition of travel destination via internal motives;
- H4: Tourists report a positive effect on travel location sentimentally via internal motives;
- H5: A positive effect relationship is existed between the perception/cognition of travel destination and the affection.

### **2.3. Experiential value**

Among the studies with regard to value issue created through experiences, the three development stages and discussion in value by Sheth, Newman & Gross (1991) and Holbrook (1994) and Mathwick, Malhorta & Rigdon (2001) are what have attended to the most, in which Sheth et al. (1991) mainly discussed a concept with multiple value functions enabled by different social interactions, exchange and consumer behaviors during a selection process of consumers' spending, and a "customer value and marketing choice" is also developed separately by Sheth et al. (1991), in which consumer value is divided into 5 categories: function value, social value, emotion value, epistemic value and conditional value, while consumers' decision behavior will subject to these five values separately or completely, in other words, consumers' decision behavior will not only subject to the product function, but will at the same time, subject to factors like emotion, peer group or internal/external environment in terms of decision-making aspect.

After that, Holbrook (1994a) has firstly used two perspectives to segment conventional experiential values, one perspective is extrinsic value & intrinsic value, the other is active value & reactive value. Holbrook (1994b) added another perspective self-oriented & other-oriented and form type of experiential value in 3 major perspectives (8 sub-perspectives).

#### **2.3.1. Extrinsic vs. Intrinsic value**

Extrinsic value refers to a value of purpose or objective that consumers would like to achieve through product function or effect of practice while conducting one mission or task, while intrinsic value is a value acquired from consumption experience generated from personal factors, such value will normally report different value cognition upon different identification basis of consumers' self interest.

**2.3.2. Active vs. Reactive value**

Active value refers to a close cooperation, interaction relationship between consumers and suppliers, i.e. the active value is generated when products belong to part of experience consumption, while reactive value refers to consumers' comprehension, power of forensics and level of reaction to the achievement of consumers' goal, i.e. consumers are part of experience consumption, reactive value comes from consumers' evaluation and response to experience.

**2.3.3. Self-oriented vs. Other-oriented value**

Self-oriented value is self evaluation generated from the self interest considered by consumers only during the process of consumption experience, while other-oriented value is a benchmark for value judgment upon consumers' evaluation reacted to the external factors.

Besides, according to Mathwick et al. (2001), consumers' consumption experience could be directly used through product nature and service performance, or, with consumers' consumption objectives achieved through an interaction process between the two, to propose a self-oriented experiential value type according to Holbrook (1994b), with experiential values classified as playfulness, aesthetic, consumer return on investment (CROI) and service excellence perspectives (Table 1). Also, Mathwick et al. (2001) has in the meantime, applied the experiential value model to a survey of online and catalogue shopping consumers, it is found that experiential values help effectively predict consumer preferences, in which the preference of those consumers shop online can generally be effectively predicted in terms of CROI perspective, and their preferences for online shopping will significantly affect consumers' intention in making a purchase in the future. In addition to CROI, the artistic value can also effectively predict the preference of catalogue shopping and their intention in making a purpose in the future for those consumers who conduct catalogue shopping.

Table 1: **Four experiential types**

|                 |                               |                    |
|-----------------|-------------------------------|--------------------|
| Extrinsic value | playfulness                   | aesthetics         |
|                 | consumer return on investment | service excellence |
| Internal value  |                               |                    |
|                 | Active value                  | Reactive value     |

Source: Mathwicka, *et al.*, (2001)

To sum up, the empirical study of definition of experiential value and related perspectives are all service industry oriented audiences, i.e. to focus on a design of service process or to create and render consumers extension from consumers' psychological perception aspect through brands, such idea is as same as a background of brand equity by luxury experience that the study would like to establish, which even introduces related perspectives of experiential value by Mathwick et al. (2001) as an important reference, in which the hypotheses are then proposed in this study

accordingly:

- H6: Tourists report positive effect on travel destination in terms of perception/cognition and experiential value of the destination.
- H7: Tourists report positive effect on travel destination in terms of emotion/psychology and experiential value.

#### **2.4. Overall image**

The formation of overall image is enabled through an evaluation of perception/cognition & emotion/psychology perspectives, while an overall tourism image will be enabled through an interaction effect of characteristics of travel destination perceived by tourists, such image cannot be measured or represented in a tangible manner, it is a complicated concept built upon psychological perspective. Image in the tourism & recreation field, represents an interactive feeling of tourists on travel itself, destination and tourism related industry (Chen, 2006). According to most studies, a chance of choosing that destination will be increased if tourists report strong and positive image on the travel destination (primary image), however, a feeling of overall image will be deepened by an experience at the destination (induced image), in which the hypotheses are then proposed in this study accordingly:

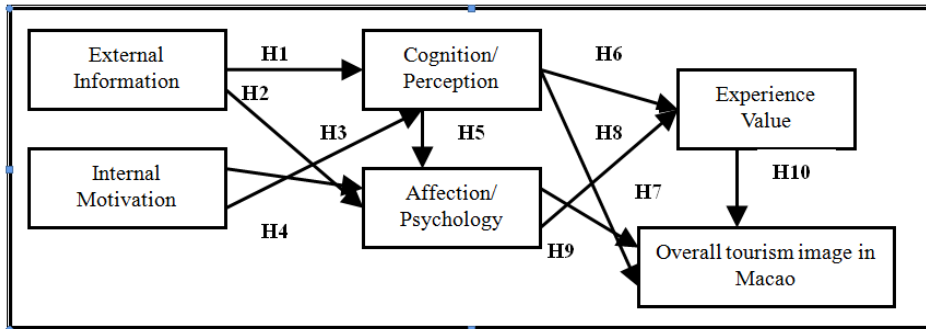
- H8: Tourists report positive effect on travel destination in terms of perception/cognition and overall image ;
- H9: Tourists report positive effect on travel destination in terms of affection/psychology and overall image ;
- H10: Tourists report positive effect on travel destination in terms of experiential value and overall image.

### **3. RESEARCH METHODOLOGY**

#### **3.1. Research framework**

The study will refer to the destination image formation model developed by Baloglu & McCleay (1999) and Pang (2004), to divide the sources that form tourism image into external (source) and internal source perspective (travel motive and psychological image features), diversion perspective (perception/cognition factor and affective factor) to explore the overall image of Taiwan visitors on Macao as a travel destination, in which the characteristics of mental picture of internal source have especially added on casino travel related questions while the experiential value perspectives by Mathwick et al. (2001) were evaluated separately in an analysis of tourists who travelled before, to make sure a real demonstration of tourists' feeling over the formation model of overall tourism image of Taiwan visitors (Figure 1); Besides, the verification on the relationship among overall model and related variables established in the study will introduce Structural Equation Modeling (SEM) to conduct analysis of causal relationship between variables.

Figure1: Destination imagination structure in Macao



### 3.2. Research object and questionnaire design

The scope of this study focuses on the destination image formation model of Taiwan visitors to Macao, therefore the questionnaire targets tourists returned from Macao special administrative region between Mar. 1<sup>st</sup> and 31<sup>st</sup>, 2009 as objects of empirical study. The questionnaire is established upon literature review with related studies consolidated in terms of the primary research perspectives by Baloglu & McCleary (1999) and Mathwick et al. (2001), to form a questionnaire with structural questions and to distribute accordingly.

There are 4 parts of questionnaire, part I is external information and internal factors that form travel motives; part II is overall tourism image, cognition/perception and emotion/psychology; part III is experiential value and part IV are questions about tourists' demographics and travel characteristics.

### 3.3. Methods of data analysis

The study introduces random sampling for questionnaire survey, in which the survey is conducted at the arrival hall of Taoyuan International Airport and Kaohsiung International Airport upon the consent of tourists to ensure a consistency of questionnaire source. As the answer of respondents that fill out the questionnaire will subject to a perceptual feeling on various questions, therefore the research objects will be limited to Taiwan visitors who aged above 20. In order to understand whether the questions are easy to answer and whether there is concern about the meaning literally, a pre-test of questions established upon various perspectives stated above is conducted. The study introduced the questionnaire as a primary tool to measure various perspectives, in which the questionnaire has been reviewed and corrected by the experts of tourism industry, a pre-test questionnaire is implemented on the tourists who visited Macao before at Taichung HSR Station, to understand the terms and level of difficulty used in the questionnaire to respondents, 100 pre-test questionnaires are distributed with 100 questionnaires returned in total, reporting 94 effective questionnaires (94% rate of return) by deducting 6 invalid questionnaires that report incomplete answer and disqualified respondents; the pre-test verification outcome indicated overall Cronbach's  $\alpha$  values, which is 0.9324 for external information, 0.9110 for internal motive, 0.8997



for perception/cognition, 0.9174 for affection/psychology, 0.9451 for experiential value and 0.9189 for overall image on a visit to Macao, in which the questionnaire report high reliability (Cronbach's  $\alpha > 0.9$ ) in various perspectives and require no correction on each separate question, which can be officially implemented and distributed.

Check the answered questionnaire and delete invalid questionnaires after the questionnaires are returned; take the measurement scale of each variable and suitability of statistical analysis toolkit into consideration to conduct data analysis upon the purpose and hypothesis requirement of the study. The study will introduce reliability and validity analysis, correlation analysis and Structural Equation Modeling as primary tools for statistical data analysis.

#### **4. EMPIRICAL ANALYSIS**

##### **4.1. Descriptive analysis of sample structure**

The duration of questionnaire is between Mar. 1<sup>st</sup> and 31<sup>st</sup> 2009, with 1000 questionnaires distributed at Taoyuan International Airport and Kaohsiung International Airport and with 846 questionnaires returned, reporting 817 valid questionnaires (up to 81.7% rate of return) after deleting 29 invalid questionnaires which against the rules of answering. Speaking from gender perspective, there are more male samples (71%) than female samples (29%), with age ranged from 41 to 50 (43.5%), followed by 51-60 (32.8%); mostly college and junior college graduated (53.1%); and are mainly from business background (42.5%), followed by retired people (38.6%); reporting a purpose of travel in Macao (84.5%), followed by a business purpose (11.9%), reporting an independent travel pattern (73.1%), followed by group tour (23.8%).

##### **4.2. Analysis of overall model measurement**

In order to further examine a hypothesis on various perspectives proposed upon a conceptual framework, the study used SEM analysis to understand the relationship of overall model. A SEM analysis conducted by two stages is proposed by Anderson & Gerbing (1988), with first stage to understand situations of reliability, convergent validity, discriminant validity of various perspectives, in which analysis of Cronbach's  $\alpha$  and the confirmatory factor analysis of various research perspectives and the measurement questions are conducted, while the second stage is to verify various hypotheses of the study, which will introduce SEM to develop a structural model and to analyze accordingly after cutting down the measurement questions to a small number of factors for measurement.

According to the analysis outcome stated above, the reliability, convergent validity, discriminant validity of various perspectives have all achieved an acceptable level of standard value, it is feasible to replace one single measurement index with multiple measurement index, therefore the study will follow the average of measurement questions of various perspectives in stage 1 as a scoring criteria for a measurement model in terms of external information, internal information, cognition/perception,

affection/psychology, experiential value and overall tourism image perspectives, with the perspective in stage 1 regarded as a model for the conception of multiple measurement index model in stage 2 (Table 2).

Table 2: **Definitions of overall model of the study**

| Potential construction | Observed variables   |
|------------------------|--|
| External information   | Source channel, source quantity                                  |
| Internal motivation    | Travel motivation, characteristics of mental picture of tourists |
| Cognition/perception   | Attraction, experience, price/environment                        |
| Affection/psychology   | Affection/psychology   |
| Experiential value     | Aesthetics, playfulness, CROI, service excellence                |
| Overall tourism image  | Overall tourism image  |

### 4.3. Outcomes of analysis

The study introduces AMOS 5.0 SEM software to conduct statistical data analysis, a significant correlation among various measurement variables is shown by consolidating the average, standard deviation and related coefficient matrix (Table 3) of various measurement variables,, which is best fit for subsequent SEM analysis.

Table 3: **Variables relative factor analysis**

| variable   | mean | S.D. | 1      | 2      | 3      | 4      | 5      |
|--|------|------|--------|--------|--------|--------|--------|
| <b>External information</b>                      |      |      |        |        |        |        |        |
| 1. Source channel                                | 5.68 | 1.30 | 1.00   |        |        |        |        |
| 2. Source quantity                               | 4.97 | 1.30 | 0.812* | 1.00   |        |        |        |
| <b>Internal motivation</b>                       |      |      |        |        |        |        |        |
| 3. Travel motivation                             | 5.72 | 1.40 | 0.487* | 0.408* | 1.00   |        |        |
| 4. characteristics of mental picture of tourists | 5.89 | 1.34 | 0.443* | 0.413* | 0.814* | 1.00   |        |
| <b>Cognition/perception</b>                      |      |      |        |        |        |        |        |
| 5. experience                                    | 5.79 | 1.21 | 0.547* | 0.683* | 0.534* | 0.402* | 1.00   |
| 6. Attraction                                    | 5.67 | 1.19 | 0.751* | 0.706* | 0.687* | 0.475* | 0.721* |
| 7. price/environment                             | 5.41 | 1.30 | 0.711* | 0.693* | 0.642* | 0.433* | 0.611* |
| <b>Affection/psychology</b>                      |      |      |        |        |        |        |        |
| 8. Affection/psychology                          | 5.97 | 1.25 | 0.429* | 0.486* | 0.734* | 0.738* | 0.521* |
| <b>Experiential value</b>                        |      |      |        |        |        |        |        |
| 9. playfulness                                   | 5.88 | 1.34 | 0.514* | 0.278* | 0.621* | 0.709* | 0.677* |
| 10. Aesthetics                                   | 5.81 | 1.32 | 0.454* | 0.503* | 0.546* | 0.667* | 0.631* |
| 11. service excellence                           | 5.76 | 1.32 | 0.437* | 0.579* | 0.567* | 0.647* | 0.638* |
| 12. CROI   | 5.90 | 1.20 | 0.489* | 0.467* | 0.547* | 0.606* | 0.701* |
| <b>Overall tourism image</b>                     |      |      |        |        |        |        |        |
| 13. Overall tourism image                        | 5.87 | 1.17 | 0.694* | 0.618* | 0.731* | 0.783* | 0.763* |

\*p<0.001

| variable   | 6      | 7      | 8      | 9      | 10     | 11     | 12     | 13   |
|--|--------|--------|--------|--------|--------|--------|--------|------|
| <b>External information</b>                      |        |        |        |        |        |        |        |      |
| 1. Source channel                                |        |        |        |        |        |        |        |      |
| 2. Source quantity                               |        |        |        |        |        |        |        |      |
| <b>Internal motivation</b>                       |        |        |        |        |        |        |        |      |
| 3. Travel motivation                             |        |        |        |        |        |        |        |      |
| 4. characteristics of mental picture of tourists |        |        |        |        |        |        |        |      |
| <b>Cognition/perception</b>                      |        |        |        |        |        |        |        |      |
| 5. experience                                    |        |        |        |        |        |        |        |      |
| 6. Attraction                                    | 1.00   |        |        |        |        |        |        |      |
| 7. price/environment                             | 0.539* | 1.00   |        |        |        |        |        |      |
| <b>Affection/psychology</b>                      |        |        |        |        |        |        |        |      |
| 8. Affection/psychology                          | 0.688* | 0.700* | 1.00   |        |        |        |        |      |
| <b>Experiential value</b>                        |        |        |        |        |        |        |        |      |
| 9. playfulness                                   | 0.523* | 0.614* | 0.473* | 1.00   |        |        |        |      |
| 10. Aesthetics                                   | 0.485* | 0.561* | 0.517* | 0.433* | 1.00   |        |        |      |
| 11. service excellence                           | 0.416* | 0.587* | 0.536* | 0.742* | 0.810* | 1.00   |        |      |
| 12. CROI   | 0.503* | 0.603* | 0.544* | 0.694* | 0.712* | 0.749* | 1.00   |      |
| <b>Overall tourism image</b>                     |        |        |        |        |        |        |        |      |
| 13. Overall tourism image                        | 0.699* | 0.594* | 0.785* | 0.751* | 0.766* | 0.801* | 0.820* | 1.00 |

\*p < 0.001

#### 4.4. Overall model fit

Overall model fit is to measure level of fitness on overall model and data of observed objects (Huang, 2001). According to Table 4, the measurement index for 1 of overall theory model and absolute fitness is:  $\chi^2=347.91$  (d.f.=181), GFI=0.930, RMSR=0.023 and RMSEA=0.050 all attained an acceptable range; 2. Incremental fit measures are to compare the relationship between the theory model and null model in this study, with AGFI=0.906, NFI=0.964, CFI=0.981 all achieved an acceptable range; 3. parsimonious fit measures are to adjust fitness measurement, which will be able to compare the number mode of various estimated coefficients to facilitate decision on acquired level of fit of every estimated coefficient, the measurement indexes PNFI = 0.802, PGFI=0.693 have to all achieved an acceptable range. According to outcome of various key assessment indexes, the study reports good model fit in overall.

Table 4: Overall model fit analysis

| measurement index   | Ideal value            | result |
|---------------------|------------------------|--------|
| Absolute fitness    |                        |        |
| $\chi^2$            |                        | 347.91 |
| d.f.                |                        | 181    |
| $\chi^2 / d.f.$     | < 3                    | 1.92   |
| GFI                 | > 0.9                  | 0.930  |
| RMSR                | the smaller the better | 0.023  |
| RMSEA               | < 0.08                 | 0.050  |
| incremental fitness |                        |        |

| measurement index | Ideal value           | result |
|-------------------|-----------------------|--------|
| AGFI              | > 0.9                 | 0.906  |
| NFI               | > 0.9                 | 0.964  |
| CFI               | > 0.9                 | 0.981  |
| Brief fitness     |                       |        |
| PNFI              | the bigger the better | 0.802  |
| PGFI              | > 0.5                 | 0.693  |

#### 4.5. Fitness of internal structure of overall model

In order to evaluate significance level of estimated parameters, reliability of various indicators and potential variables within the model, a further evaluation of whether the individual item reliability and composite reliability of potential items attain 0.7, whether the variance extracted of potential variables achieved 0.5 is conducted (Table 5). The composite reliability of various potential variables: external information, internal motive, cognition/perception, affection/psychology, experiential value and overall tourism image are 0.904, 0.894, 0.879, 0.912, 0.910 and 0.887, while the variances extracted are 0.545, 0.768, 0.604, 0.662, 0.657 and 0.708 respectively, which all achieved an acceptable range, it thus can be seen that the model of this study reports good fitness of internal structure. The external information can be understood through a discussion of factor load of various perspectives, in which the source channel ( $\lambda=0.889$ ) and number of information received ( $\lambda=0.818$ ) are important factors for tourists who decide to travel in Macao to acquire external information, indicating that Taiwan travel agency or Macau Government Tourist Office will be able to increase ads of tourism information such as news exposure, related books, movie shooting and other means if they would like to reinforce the destination image formation of Macao among tourists, to deepen the aspiration and imagination of tourists on that destination and to stimulate the formation of active and positive tourism image. While as far as internal motive perspective is concerned, the formation of internal image of tourists can significantly be affected by travel motive ( $\lambda=0.864$ ) and characteristics of mental picture ( $\lambda=0.868$ ) factors psychologically, the tourists will be able to further generate a destination image of Macao through psychological situation and variance of regions such as relax/escape, excitement, adventure, knowledge, personal imagination and cognition.

Tourists' experience ( $\lambda=0.792$ ), attraction ( $\lambda=0.888$ ) and value/environment ( $\lambda=0.845$ ) of the travel destination from cognition/perception perspective have shown that the attraction is the fundamental element that normally raises tourists' attention and interest before an actual visit to Macao, while value/environment is also another important factor which is key to attract tourists of various nations to travel in that destination once the package tour of that destination conforms to the cognition of expected value psychologically, and the overall traveling environment it created meet the diverse requirements of the general public,  $\lambda=0.812$  in affection/psychology perspective indicated that tourists report special affective factor on Macao, e.g. mainland china area during the Portuguese Colonial Period before, mixture and assembling of western and eastern culture and art, buildings of traditional and modern design to stand in great numbers etc., in which they can be baptized by the essence of diverse culture while

visiting Macao, they will not only wander about the traditional arts and feeling of atmosphere of all the dynasties in China unhurriedly, but also accept the horizons that expand shockingly enabled by the western gambling business; tourists all nearly report 0.9 on the playfulness ( $\lambda=0.921$ ), aesthetics ( $\lambda=0.899$ ), service excellence ( $\lambda=0.912$ ) and CROI ( $\lambda=0.931$ ) in terms of experiential value perspective, indicating that whether the various tour package and overall planning of scenic spots in Macao will enable certain level of playfulness to tourists (the diverse package content design and choices that attract tourists in different segments), furthermore, in no matter the internal values such as natural scenes or aesthetic atmosphere created by manufactured buildings (e.g. differentiated casino hotel design in overall, city appearance and image of Macao, characteristics of tourists visiting Macao); or external values felt by tourists who visited Macao (service excellence, and CROI) are all key factors that affect tourists' cognition of experiential value in Macao, which are also the focus points that form a positive overall tourism image.

Table 5: **Fitness of internal structure of overall model**

| variable                                      | estimated parameters of MLE  |                                  | Combination of reliability | Variance extracted |
|---|------------------------------|----------------------------------|----------------------------|--------------------|
|   | Factor loading ( $\lambda$ ) | Measurement error ( $\epsilon$ ) |                            |                    |
| <b>External information</b>                   |                              |                                  | 0.904                      | 0.545              |
| Source channel                                | 0.889***                     | 0.296                            |                            |                    |
| Source quantity                               | 0.818***                     | 0.347                            |                            |                    |
| <b>Internal motivation</b>                    |                              |                                  | 0.894                      | 0.768              |
| Travel motivation                             | 0.864***                     | 0.307                            |                            |                    |
| Characteristics of mental picture of tourists | 0.868***                     | 0.297                            |                            |                    |
| <b>Cognition/perception</b>                   |                              |                                  | 0.879                      | 0.604              |
| Experience                                    | 0.792***                     | 0.374                            |                            |                    |
| Attraction                                    | 0.888***                     | 0.297                            |                            |                    |
| Price/environment                             | 0.845***                     | 0.328                            |                            |                    |
| <b>Affection/psychology</b>                   |                              |                                  | 0.912                      | 0.662              |
| Affection/psychology                          | 0.812***                     | 0.351                            |                            |                    |
| <b>Experiential value</b>                     |                              |                                  | 0.910                      | 0.657              |
| playfulness                                   | 0.921***                     | 0.142                            |                            |                    |
| Aesthetics                                    | 0.899***                     | 0.242                            |                            |                    |
| Service excellence                            | 0.912***                     | 0.154                            |                            |                    |
| CROI  | 0.931***                     | 0.130                            |                            |                    |
| <b>Overall tourism image</b>                  |                              |                                  | 0.887                      | 0.708              |
| Overall tourism image                         | 0.846***                     | 0.324                            |                            |                    |

$\chi^2=347.91$ , d.f. = 181, GFI = 0.930, RMSR = 0.023, AGFI = 0.906, NFI = 0.964, CFI = 0.981, PNFI = 0.802, PGFI = 0.693  
 \*\*\* p < 0.001

#### 4.6. Effect analyses between variables

An effect analysis between variables can be divided as direct effect, indirect effect and total effect, in which total effect is a sum of direct effect and indirect effect. According to Figure 2 and Table 6, a positive and direct effect on overall tourism image in Macao is enabled by  $\beta_{42}$  and  $\beta_{43}$  through conversion variables - affection/psychological and experiential values, in which an evaluation of experiential value reports significant effect ( $\beta_{43}=.853$ ). According to the outcome of the study in overall, all variables of research framework will cause an effect on overall tourism image via conversion variables, furthermore, a judgment of tourists on destination image extended from affective/psychological perspective is clearly understood in no matter the total effect of overall tourism image by evaluation of tourists' perception/cognition (.46) and sentiment/psychology, or judged by the path of direct effect, i.e. tourists will gradually establish their expected picture and expected feeling about that destination to form overall tourism image through gathering of external information (including inquiry of feelings of tourists who have traveling experience or online rating of traveling experience) and exploration of internal motives (including travel motive, travel destination and destination image).

Figure2: Significant impact on the relationship between variables map about the destination image in Macao

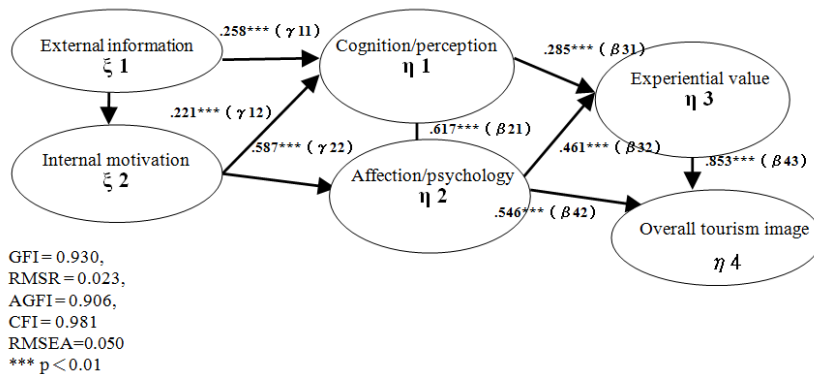


Table 6: Effectiveness analysis on the overall image variables in Macao

| effect<br>variable       | Direct<br>effect | Indirectly effect        |                          |  |                       | total<br>impact<br>effect |
|--------------------------|------------------|--------------------------|--------------------------|--|-----------------------|---------------------------|
|                          |                  | Cognition/<br>perception | Affection/<br>psychology | Cognition/perception &<br>Affection/psychology | Experiential<br>value |                           |
| External<br>information  | --               | .13                      | --                       | .24  | --                    | .37                       |
| Internal<br>motivation   | --               | .09                      | --                       | .28  | --                    | .37                       |
| Cognition/<br>perception | --               | --                       | --                       | .17  | .29                   | .46                       |
| Affection/<br>psychology | .55              | --                       | --                       | --   | .27                   | .82                       |
| Experiential<br>value    | .85              | --                       | --                       | --   | --                    | .85                       |

## CONCLUSIONS AND SUGGESTIONS

The study is mainly to explore and construct the image formation model of Taiwan tourists to Macao through a perception of tourists who report actual traveling experience in Macao, and to further apply results of correlation analysis to propose worth-referring conclusions and suggestions with practical verification.

### Conclusions

Taiwan tourists who visited Macao before generally report a positive tourism image, a rapidity and diversity of internet and media broadcast channels has led to an experience of travel destination without attendance in person, a collection of diverse information is conducted on that destination to initially form tourism image (experience before actual visit) with related acquired information combined with consumption intention of each individual, however, but until the overall image feeling of travel destination formed after tourists visit the place and conduct traveling, it may be a formation of positive conformity to the tourism image expected, or negative feeling about the tourism image, however, the tourism value and image created by actual “experience” plays an important role in adjusting the tourism image model, which can be proclaimed as real overall tourism image of tourists.

Taiwan tourists who visited Macao before report no significant effect on the differentiated performance of overall tourism image of Macao in terms of perception/cognition perspectives (experience, attraction or value/environment) or emotion perspective, or emotion perspective influenced by perception/cognition perspective, the overall image of tourists visiting Macao can be enhanced if consumers’ return on investment and service superiority are conducted through experiential value perspective in terms of value/environment variables of Taiwan tourists perception/cognition perspective, or if the playfulness and esthetics conducted through experiential value perspective in terms of experience and attraction variables of tourists’ affection/psychology perspective.

A tourism image of Macao between Taiwan visitors is built upon casino hotel industry surrounded by an atmosphere of luxury, feeling of casino culture of mirage visions of Asia and sense and sensibility image oriented country mixed with diverse culture, are primary travel motives.

Tourists who visited Macao are mainly on independent tour, with more males than females and with information mainly comes from marketing ad and movie (look for a star) of national tourism, marketing/tourism TV program/word-of-mouth, a shorter time on deciding a travel to Macao (non-planned tour), in which the size, reputation, promotion options of travel agency are not primary factors that significantly affect the formation of tourism image model.

### Suggestions

The outcomes of the research help boost tourism & recreation related industry after the open-up policy of gambling business is released in Taiwan in the future, to attract domestic/overseas tourists to have an interest in travel, create positive intention in tourism via various tourism selection models.

First of all, Taiwan visitors prefer a travel destination selected by emotional and psychological tourism image, or, to plan related tours in terms of travel destination image construction, Taiwan visitors normally use internet, TV media or Ad for a collection of related tourist information, with aspiration enabled on the travel destination and even make an inquiry to travel agency; Looking from the determinants that form the destination image, travel image is just as establishment of image or concept acquiring, which cannot be generated over night or instantly, in which the incentives need to be designed to attract tourist interest via education, ad, word-of-mouth, placement marketing and other manners which change and influence unobtrusively or information exchange. Therefore, how to get rid of the frame of travel agency and re-build the existing impression and marketing operation model of competitive advantage in tourism of a nation by consolidating various key factors that attract tourist interest in tourism strategy planning to create the blue ocean strategy for tourism & recreation industry, which is an objective that requires a joint effort and insistence of academy/government/industry fields of tourism & recreation industry in Taiwan.

### REFERENCES

- Ahmed, Z.U. (1991), The influence of the component of a state's tourist image on product positioning strategy, *Tourism Management*, 12(4), pp. 331-340.
- Alnemoud, A.M. & Armstrong, E.G. (1996), "Image of Tourism Attraction in Kuwait", *Journal of Travel Research*, 34(4), pp. 76-80.
- Anderson, J.C. and Gerbing, D.W. (1988), "Structural equation modeling in practice: A review and recommended two-step approach," *Psychological Bulletin*, 103(3), pp. 411-423.
- Baloglu, S. & McCleary, K.W. (1999a), A model of destination image formation, *Annals of Tourism Research*, 26(4), pp. 868-897.
- Baloglu, S. & McCleary, K.W. (1999b), U.S. international pleasure travelers' images of four Mediterranean destinations: A comparison of visitors and nonvisitors, *Journal of Travel Research*, 38, pp. 144-152.
- Chen, Y.C. (2003), The perceptions of destination image and visitor's intention to travel, Unpublished Master Thesis, Ming-Chung University, Taipei, Taiwan.
- Chen, Y.J. (2006), The Relationships among Travel Destination Image and Place Attachment of Miaoli County Nanjuang Trade Area Tourists, Unpublished Master Thesis, National Chai-Yi University, ChaiYi, Taiwan.
- Choi, S., Lehto, X.Y. & Morrison, A.M. (2007), Destination image representation on the web: Content analysis of Macau travel related websites. *Tourism Management*, 28(1), pp. 118-129.
- Crompton, J.L. (1979), An assessment of the image of Mexico as a vacation destination and the influence of geographical location upon that image, *Journal of Travel Research*, 17(4), pp. 18-24.
- Dichter, E. (1985), What is an image? *Journal of Consumer Research*, 13, pp. 455-472.
- Hobson, J.S.P. (1997), Hong Kong Tourist Development Action Programme. Economic Service Bureau: Hong Kong.
- Holbrook, M.B. (1994a), The nature of customer value: An axiology of service in the consumption experience, service quality: New direction in theory and practice, by Roland T. Rust and Richard L. Oliver, eds. Thousand Oaks, Sage Publications, pp. 21-71.
- Holbrook, M.B. (1994b), Ethics in Consumer Research. *Advances in Consumer Research*, 21, pp. 566-571.



- Mathwick, C., Malhotra, N. & Rigdon, E. (2001), Experiential value: Conceptualization, measurement and application in the catalog and internet shopping environment, *Journal of Retailing*, 77, pp. 39-56.
- Mackay, K.J. & Fesenmaier, D.R. (1997), Pictorial element of destination in image formation, *Annals of Tourism Research*, 24(3), pp. 537-565.
- Pang, L.C. (2004), Construction of the image formation model of Turkey, Greece and Egypt, Unpublished Master Thesis, University of National Dong Hwa University, Hualien, Taiwan.
- Song, H. and Witt, S.F. (2006), Forecasting international tourist flows to Macau, *Tourism Management*, 27, pp. 214-224.

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