

Identifying Critical Brand Contact Elements of a Tourist Destination: Applications of Kano's Model and the Importance–satisfaction Model

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ABSTRACT

A destination brand comprises brand elements that lead tourists to form a brand impression of a destination. Based on a literature review, this study contributes to a model for exploring tourist destination brand contact experiences. The results from applying Kano's model and the importance–satisfaction model to a specific hot spring destination indicate that four types of contact elements can be identified as having different quality attributes. The contact elements related to staff's service efficiency, attitude and willingness of serving customers are identified as the critical brand contact elements for the tourist destination. Copyright © 2011 John Wiley & Sons, Ltd.

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INTRODUCTION

'Geographic locations, like organisations or products, can also be branded' (Keller, 2003; Baker and Cameron, 2008, p. 86). Therefore, because a brand is a value

indicator of a company's products and services (Aaker, 1995), destination branding is gaining prevalence because of its benefits for both tourists (e.g. easy identification) and destination authorities (e.g. competitive advantage in the market), as shown in previous studies (e.g. Kotler *et al.*, 2003; Hankinson, 2005). Although past research in the context of brand-related issues has predominantly focused on brand power (as with brand equity and brand loyalty) and its benefits for businesses (e.g. Kim and Kim, 2004; Kayaman and Arasli, 2007), an increasing number of studies are exploring the question 'Where do great brands come from?' in terms of the nature of a brand (Schultz, 1998; Fortini-Campbell, 2003; Chattopadhyay and Laborie, 2005). In a tourist destination context, this argument refers to the product and the service offerings that tourists encounter when travelling to a destination. In other words, a brand is formed by all the tourist experiences involving the core and the peripheral offerings of a tourist destination. The areas in which various forms of brand information are evaluated and interpreted by tourists are called brand contact elements, touch points or moments of truth (Fortini-Campbell, 2003). As suggested by Schultz (1998), brand contacts are not merely based on advertising, sales promotions or direct marketing but instead involve all the ways a customer comes into contact with a business. Thus, onsite brand contacts are the keys to make a good brand impression. Every product and service is both a channel and a brand contact, and business operators should make use of their product and service offerings to deliver a consistent message and establish an accurate brand experience for

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customers. To be clear, a destination brand can be described to the extent that visitors experience the contact elements of the destination, as proposed by Tasci and Kozak (2006). Based on these notions, various materials that underlie the offerings of a 'contact' to tourists precede a distinguishable destination brand (Cai, 2002). That is, 'without a contact, customers cannot encounter the brand', as claimed by Chattopadhyay and Laborie (2005, p. 10). Therefore, as long as tourists positively encounter the elements of a destination, the destination brand will have a strong position in the market (Williams *et al.*, 2004), which in turn facilitates tourists' positive behavioural intentions towards the destination (Chen and Tsai, 2007). In considering the ultimate goal of developing an aspirational destination brand (Tasci and Kozak, 2006), the concept of *brand contact*, proposed by Fortini-Campbell (2003) and Chattopadhyay and Laborie (2005), makes an important contribution. Although the issue of exploring the contact elements of a tourist destination has been discussed in the tourism literature (e.g. Li *et al.*, 2008), little attention has been paid to the brand contact perspective on how to build a tourist destination brand.

Listening closely to the perspectives of tourists is important in achieving branding success that creates a competitive advantage for tourist destinations. Towards this end, one should identify the most critical brand contact elements of a tourist destination to improve and then use relevant improvements to satisfy tourists. An integrated approach that combines Kano's model with the importance-satisfaction (I-S) model can solve the challenge of exploring the critical brand contact elements of a tourist destination. Kano's model is used because it 'uniquely identifies customer requirements in detail by assigning different categories to different requirements' (Sireli *et al.*, 2007, p. 380), thus providing a more accurate voice of the tourists for a destination authority. Particularly, the 'efficient-improved contact elements' could be ascertained in light of the elements that can concurrently increase customer satisfaction and decrease customer dissatisfaction based on the quality attributes categorized in Kano's model (Matzler and Hinterhuber, 1998; Deng and Lee, 2007). Furthermore, the I-S model is utilized to clarify the strengths and the weaknesses of the brand contact elements of a tourist destination

because the I-S model approach intends to determine the quality of the product and the service offerings of businesses (Chen, 2009; Yang *et al.*, 2009). From the I-S model, the 'prior-improved contact elements' can be ascertained based on whether they fall into the most necessary improvement areas for the destination authority. Accordingly, the brand contact elements that simultaneously possess *efficient-improved* and *prior-improved* quality attributes emerge as the critical brand contact elements in further improving the brand impressions of tourists regarding the tourist destination.

In summary, the objectives of this study are as follows: (i) to construct a brand contact model for a tourist destination; (ii) to categorize the brand contact elements of the tourist destination based on Kano's model; (iii) to explore the brand contact experiences of tourists using the I-S model; and (iv) to identify the critical brand contact elements based on the findings of Kano's model and the I-S model, thus providing suggestions for branding tourist destinations.

LITERATURE REVIEW

Destination brand contact model construction

As stated by Hernández-Lobato *et al.* (2006), a destination brand is tied to the geographical conditions of a location and influenced by a variety of elements. Therefore, from a real-image formation perspective (Jenkins, 1999; Croy and Wheeler, 2007) in particular, it is important to emphasize the necessary brand elements when trying to lead onsite tourists to notice and accept the offerings and the characteristics of the destination (Hankinson, 2005). Therefore, instead of immediately identifying the contact elements of a designated destination, this study constructs a destination brand contact model based on the types of product and the service offerings that tourists would experience at a destination.

Chattopadhyay and Laborie (2005) proposed that customer brand contact should be based on the specific benefits of the brand offered. Because the customer-benefit concept bundles functional, effectual and psychological features (Bateson, 1979), the benefits related to brands can be divided into two types: *performing benefits* and

emotional benefits. Drawing on the idea put forth by Miller and Foust (2003, p. 44), performing benefits are 'an intrinsic effect of the offerings', whereas emotional benefits are 'the processes and positive consequences of consumption'. Action-based contacts connected with brands can be divided into two forms, *tangible actions* and *intangible actions* (Lovelock, 1994, p. 13–14). Tangible actions are situations in which 'customers must physically interact with providers because they are an integral part of the processes'. Intangible actions are interactions in which 'customers have to be in mental communication with the benefits being presented by providers'. Accordingly, the proposed destination brand contact model consists of the two-dimensional constructs experienced by tourists.

Moreover, in terms of 'the progression of economic value', as proposed by Pine and Gilmore (1998), four levels of offerings – goods, services, experiences and transformations – create different consumption adventures for tourists. Similarly, brand contacts can be sorted by level into four contact realms based on the two-dimensional constructs. Four kinds of contact realms (*facility-oriented contact*, *atmosphere-oriented contact*, *service-oriented contact* and *association-oriented contact*) underlie the destination brand contact model for grouping the key brand contact elements of a destination. The model of the four brand contact realms proposed by this study is shown in Figure 1; each classification reflects its unique contact subjects.

A facility-oriented contact concerns 'tangibles that are directly or peripherally parts of an offering' (Berry and Clark, 1986, p. 54). This concept refers to tangible facilities that are directly or peripherally part of an offering that can be brought into focus through a physical contact. Mittal and Baker (2002) have proposed that physical representation shows the physical components of an offering and claimed that it would benefit providers to identify physical entities that would most effectively represent the desired value to customers, because those entities provide substance and meaning for their customers. Therefore, a facility-oriented contact occurs in a tangible way by focusing on the good aspects of a destination from which the tourists will receive performing benefits.

An atmosphere-oriented contact occurs when 'the physical environment creates an emotional response, which in turn elicits approach or avoidance behavior in regard to the physical environment' (Countryman and Jang, 2006, p. 535). In that paper, the authors found that three atmospheric elements, colour, lighting and style, were significantly related to the overall impression of a hotel lobby (Countryman and Jang, 2006). This observation demonstrates that the surroundings of the specific environment help customers form their attitudes and behaviours (Bitner, 1992). The goal is that all these endeavours create an emotional experience for tourists. To some extent, atmospheric cues or clues are more important in the purchasing

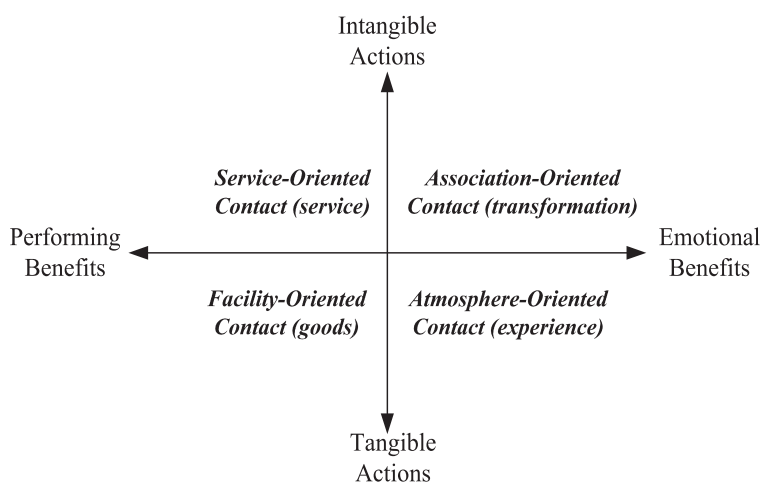


Figure 1. The destination brand contact model with four contact realms.

decision than they are for physical goods (Brady *et al.*, 2005). Therefore, an atmosphere-oriented contact occurs in a tangible way by focusing on the experience aspects of a destination from which the tourists will receive emotional benefits.

A service-oriented contact refers to 'a service encounter that serves as a sign of quality and value to customers' (Hartline and Jones, 1996, p. 207). For example, findings relating to hotels conclude that the performance of front desk, housekeeping and parking personnel significantly affect perceived quality, whereas the performance of front desk and room service personnel significantly affect perceived value. This means that the customer–staff interaction is critical to the success of the service experience (Devlin and Dong, 1994). Clearly, although service is intangible, the better the service contact, the greater the encounter performance perceived by customers (Bearden *et al.*, 2005). Therefore, a service-oriented contact occurs in an intangible way by focusing on the service aspects of a destination from which tourists will receive the performing benefits.

An association-oriented contact refers to the 'images come to the customer's mind' (Kotler, 2003, p. 430). As proposed by Keller (1993), brand benefits, or the personal values and meanings attached to the attributes, are related to the customer's brand associations that form a brand image. Thus, the brand associations towards a destination's benefits play an important role in how a brand image is conceptualized, such as the heritage of a city (Hankinson, 2005). Thus, in the field of tourism destination marketing, studies that focus on discussing the destination image of tourists propose that some specific factors, such as affective associations with a destination, are important in motivating tourists to visit (Baloglu and McCleary, 1999; Hankinson, 2005). Therefore, an association-oriented contact occurs in an intangible way by focusing on the transformational aspects of a destination from which tourists will receive emotional benefits.

Destination brand contact elements and Kano's model

Based on previous studies, understanding the desires of tourists is necessary to achieve

branding success for a destination. Thus, the approach of Kano's model is applied to explore the brand contact elements of a destination.

A two-dimensional quality model (see Figure 2), as proposed by Kano *et al.* (1984), categorizes the attributes of a product or service based on how well it satisfies customer needs by looking at customer experiences (Tan and Pawitra, 2001). In other words, the core concept of Kano's model is that although satisfying the customers is the main challenge, delighting them with unexpected quality is also worthwhile (Shen *et al.*, 2000). Based on Kano's model, destination brand contact elements can be separated into five quality attributes to understand tourist quality expectations regarding a destination. Yang (2005, p. 1128–1129) summarized the five categories of Kano's model as follows: (i) attractive quality attribute: an attribute that gives satisfaction if present but no dissatisfaction if absent; (ii) one-dimensional quality attribute: an attribute that is positively and linearly related to customer satisfaction – i.e. the greater the degree of fulfilment of the attribute, the greater the degree of customer satisfaction; (iii) must-be quality attribute: an attribute whose absence will result in customer dissatisfaction but whose presence does not significantly contribute to customer satisfaction; (iv) indifferent quality attribute: an attribute whose presence or absence does not cause any satisfaction or dissatisfaction for customers; and (v) reverse quality attribute: an attribute whose presence causes customer dissatisfaction and whose absence results in customer satisfaction. In summary, Kano's model categorizes the desired brand contact elements, and this is beneficial to the understanding of tourist requirements for a destination.

Furthermore, based on Kano's model, Matzler and Hinterhuber (1998) provided a 'customer satisfaction coefficient' to identify the extent to which meeting a product/service requirement increases customer satisfaction or whether fulfilling this product/service requirement merely prevents the customer from becoming dissatisfied. The customer satisfaction coefficient is indicative of 'how strongly a product/service feature may influence satisfaction or, in the case of its non-fulfilment, customer dissatisfaction' (Matzler and Hinterhuber, 1998, p. 33). The customer satisfaction coefficient uses Equations

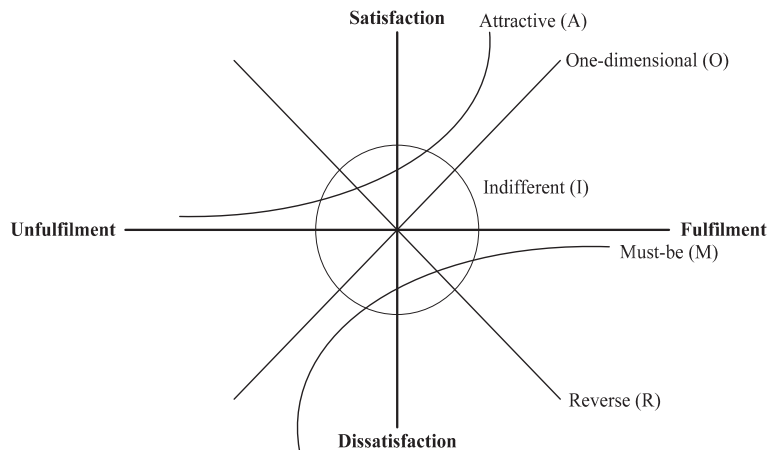


Figure 2. Kano's model of quality attributes. Reproduced from Yang (2005), with permission from Taylor & Francis Group.

(1) and (2) as follows. According to the customer satisfaction coefficient, Deng and Lee (2007) further suggested that if the product and the service elements can simultaneously increase customer satisfaction and decrease customer dissatisfaction, these elements constitute an efficiency advantage to improve the contact quality of product/service offerings for a tourist destination. Such elements, termed 'efficient-improved contact elements' in this study, serve as guidelines for a destination authority prioritizing brand contact elements to satisfy tourists for the sake of efficiency (i.e. at minimum cost but with maximum positive impact).

The coefficient for increasing customer satisfaction (Matzler and Hinterhuber, 1998):

$$(A + O)/(A + O + M + I) \quad (1)$$

The coefficient for decreasing customer dissatisfaction (Matzler and Hinterhuber, 1998):

$$(O + M)/(A + O + M + I) \times (-1) \quad (2)$$

Destination brand contact elements, the importance–satisfaction model and the brand contact priority grid

Furthermore, based on the obtained brand contact elements, an I–S model analysed tourist experiences with the contact elements of a tourist destination. The I–S model is a two-dimensional model, with the degree of importance on the

vertical axis and the level of satisfaction on the horizontal axis (Yang *et al.*, 2009). In this model, the results for each quality attribute are noted in the quadrants of the model, and improvement strategies are then considered on the basis of the area in which each element is located (Chen, 2009). Towards this end, the *brand contact priority grid*, provided by Fortini-Campbell (2003), interpreted the considerations at play in bringing the real brand of a destination into conformity with the aspirational brand. According to the two-dimensional assessments of importance and satisfaction, the brand contact priority grid ascertained whether the brand contact elements were manifested for tourists as *Delighters*, *Disgusters*, *Annoyances* and *Frills*, as shown in Figure 3. The management of a destination authority can analyse the four types of brand contacts to discover the most important factors for better meeting the requirements of tourists.

In the brand contact priority grid, in accordance with the interpretation of the I–S model (Chen, 2009), the contact elements in the quadrant of *Delighters* are evaluated as important to tourists and as satisfactory performance regarding the Excellent area. The contact elements in the quadrant of *Disgusters* are evaluated as being important to tourists but of unsatisfactory performance regarding To-be-improved area. The contact elements in the quadrant of *Annoyances* are evaluated as being unimportant to tourists and of unsatisfactory performance regarding the Careless area. The contact elements in the quadrant of

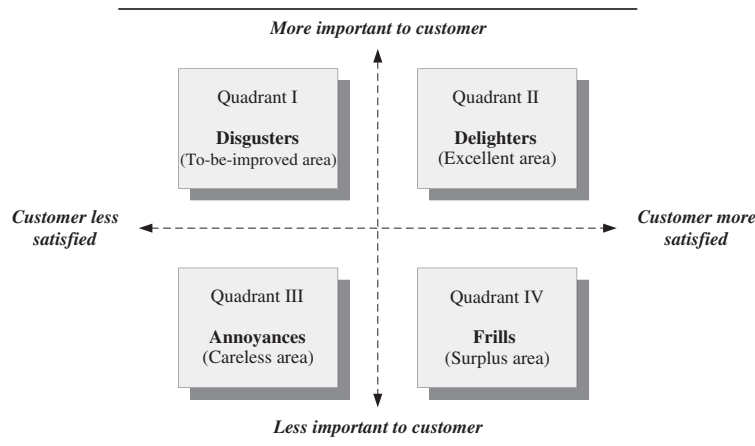


Figure 3. The I-S model analysis with the brand contact priority grid. Modified from Fortini-Campbell (2003), with permission from John Wiley & Sons, Inc.

Frills are evaluated as being unimportant to tourists but of satisfactory performance regarding the Surplus area.

Bearing in mind the results of the brand contact priority grid, the management of a destination authority should pay particular attention to 'Delighters' and 'Disgusters' because they do the most to shape the brand in the mind of the tourists. The management of a destination authority can most help its branding by addressing the Disgusters first because tourists think these most require change, and these are called 'prior-improved contact elements' in this study. However, many destination authorities may expend too many resources on Frills, which tourists like but do not feel that these are of immediate importance. Therefore, once the destination authority removes Disgusters and Annoyances, they should increase the Delighters (Fortini-Campbell, 2003). In summary, the brand contact priority grid in terms of the I-S model can be used as a tool to develop brand management strategies for a destination authority.

Even though it is assumed that the contact elements can be clearly distinguished in the brand contact priority grid, in some cases, the elements locate on the mean between two quadrants or perform very similarly in value in the same quadrant of the brand contact priority grid. Thus, precisely grouping brand contacts and making appropriate decisions regarding areas for improvement can be difficult. Therefore, Yang *et al.* (2009) provided the concept of an 'improvement index' to prioritize elements.

Thus, the analysis of the degree of importance of an element versus its satisfaction level is more valuable than the analysis provided by a simple model of satisfaction (Yang *et al.*, 2009). The calculation of the improvement index uses the following equation (Yang *et al.*, 2009).

$$\text{Improvement Coefficient} = \frac{(\text{Satisfaction level} - \text{Important degree})}{\text{Importance degree}} \quad (3)$$

RESEARCH METHOD

Acquisition of brand contact elements of a hot spring destination

A hot spring destination is taken as a study case; therefore, the related literature regarding hot spring destinations was reviewed to determine the elements of a hot spring destination based on the destination contact model established in this study. Besides, the survey instrument was examined by three hot spring experts to check the validity of the wording of the questionnaire. Finally, the 20 preliminary hot spring destination contact elements were obtained as listed in Table 1.

Questionnaire design

The Kano measurement is designed, based on the obtained contact elements, consisting of pairs of one positive and one negative question each; it

Table 1. Exploratory Factor Analysis results of the brand contact elements of the hot spring destination

Contact realm	Brand contact elements	Factor loading			
		1	2	3	4
Association-oriented contact	Physical and mental health associations	0.795			
	Body and mind relaxation associations	0.785			
	Stress-relief associations	0.753			
	Emotional-exchange associations	0.750			
	Happiness associations	0.676			
Atmosphere-oriented contact	Ethnic customs		0.735		
	Unique history and culture		0.713		
	Specific natural scenery		0.657		
	Variety of recreational activities		0.632		
	Characteristic planning of the surroundings		0.619		
Service-oriented contact	Good service in terms of willingness of the staff			0.804	
	Good service in terms of attitude of the staff			0.787	
	Good service in terms of efficiency of the staff			0.779	
	Hospitable and friendly residents			0.605	
Facility-oriented contact	Varied hot spring facilities				0.767
	Varied hot spring bath pools				0.759
	Varied local cuisine				0.512
	Convenient transportation (deleted)				0.407
	Clean environment (deleted)		0.411		0.445
	Great variety of fauna and flora (deleted)		0.483		0.402
	Eigenvalues	8.485	1.946	1.267	1.019
% of variance	48.081	9.515	5.764	4.132	
Cumulative %	48.081	57.596	63.361	67.493	
Cronbach's alpha	0.904	0.918	0.893	0.821	
Mean	4.170	3.910	3.818	3.897	
Kaiser–Meyer–Olkin	0.930				

provides a systematic way of grouping tourist requirements into different Kano categories. One pair of questions, e.g. is 'How would you feel if the hot spring destination had [*x element*]?' and 'How would you feel if the hot spring destination did not have [*x element*]?' For each question, tourists chose from one of the following responses: 'delighted', 'expect and like it', 'no feeling', 'live with it' or 'do not like it'.

Following the portion of the process using Kano's model, clarifying how tourists experience the destination's contact elements is another goal in this study. Therefore, subsequent to the Kano measurement, each subject is also asked to rate the degree of importance (very unimportant = 1 to very important = 5) and satisfaction (very unsatisfied = 1 to very satisfied = 5) associated with each contact element. Subsequent to the importance and satisfaction measurements, the last part of the

questionnaire presents the respondents' demographic information using a categorical scale.

Research samples and data collection

The present study gathered data at the Wulai Hot Springs (which is one of northern Taiwan's most popular tourist destinations) over a 3-week period at different time intervals (e.g. weekdays or weekends from 0900 hours to 1900 hours) to ensure a representative sample. Before starting the investigation, four post-graduate students were trained as interviewers so that they would fully understand the content of the questionnaire and thus be able to answer questions from the respondents and were given identification badges. If the participants were willing to participate in the survey and completed the questionnaire, they were thanked for their participation and were given

a small gift of eco-chopsticks. To make the sample as representative of the target population as possible, the chosen respondents were tourists (18 years and older) visiting the Wulai Hot Springs. The respondents were asked to participate in the study before they left the site to return home. Data collection occurred in parking lots, bus stops, the tourist service centre, parks and at nearby hot spring hotels or restaurants. Ultimately, a total of 300 questionnaires were distributed, and 278 usable samples were returned, representing a response rate of 92.7%.

RESULTS

Demographic profile

Of these 278 questionnaires, 45% were from male respondents and 55% were from female respondents. The majority (50.1%) were between 25 and 45 years old. The majority of the respondents (78.8%) were from northern Taiwan, followed by those who were from the middle areas of the country. Finally, the majority (54.7%) had a university degree (bachelor's or equivalent), and most had an income less than \$NT40 000 per month.¹ Finally, 93.5% of the respondents came to the hot springs with a travel partner. Table 2 presents the respondents' profiles.

Results of Kano's model analysis

The principal axis factoring with oblique rotation is used to identify sub-dimensions in the brand contact measurement. Consequently, based on the patterns of the factor loadings, it was clear that the four factors encompassed 17 brand contact elements attributed to the four proposed contact realms determined, as presented in Table 1. Furthermore, the collected responses ($n=278$) were analysed through confirmatory factor analysis using a Structural Equation Modeling package through AMOS (Analysis of Moment Structure, Amos Development Corporation, Spring House, Pennsylvania, USA) version 6.0. Although the χ^2 statistic is too high due to the larger sample (Baggozzi and Yi, 1988), the results showed that the Structural Equation Modeling statistics (e.g. goodness of fit

index=0.928, normed fit index=0.932, comparative fit index=0.968 and root mean square error of approximation=0.052) sampled from the tourists match the suggested requirement for the model's goodness of fit. As for convergent validity, the results showed that most of the standardized factor loadings are higher than the suggested value of 0.40 in a confirmatory factor analysis (Anderson and Gerbing, 1988). In addition, construct reliability estimates exceeded the critical value of 0.7 recommended by Hair *et al.* (1998), indicating that it was satisfactory. Furthermore, the results showed that the confidence interval of the correlation did not include one (Hatcher, 1994); thus, the four constructs present good discriminant validity.

The classification of the contact elements required the use of the method associated with the Kano evaluation table proposed by Matzler and Hinterhuber (1998). The 17 brand contact elements were classified into the five quality attributes based on the percentages for the quality attributes, as presented in Table 3. Additionally, the customer satisfaction coefficient was calculated as listed in Table 3 and marked as C(1) and C(2) (please refer to Equations (1) and (2)). Accordingly, a matrix of the customer satisfaction coefficient is illustrated in Figure 4 (the data were transferred into absolute value form and magnified 100 times in advance), which evaluates the degree of any increase in customer satisfaction (x -axis) and the degree of any decrease in customer dissatisfaction (y -axis). The co-ordinates were then divided into four areas based on the data mean ($x=45.935$; $y=46.263$). Thus, it was determined that the elements in the quadrant that can concurrently increase customer satisfaction and decrease customer dissatisfaction are the 'efficient-improved contact elements' (denoted by the numbers 4, 9, 10 and 11, which correspond to the numbers used in Tables 3 and 4) for the Wulai Hot Springs destination.

Results of the importance-satisfaction model analysis with the brand contact priority grid

This portion of the paper aims to investigate tourist experiences with the brand contact elements of the Wulai Hot Springs destination using the I-S model analysis with the brand

¹\$NT1 = \$US0.32 at the time of study.

Table 2. Profile of the respondents ($n = 278$)

Variables		Frequency (s)	Percentage of total (%)
Gender	Male	125	45.0
	Female	153	55.0
Age	18–24	41	14.7
	25–34	78	28.1
	35–44	62	22.3
	45–54	52	18.7
	55 and over	45	16.2
Education level	Primary	27	9.7
	High school	99	35.6
	University	134	48.2
	Post-graduate	18	6.5
Monthly income (\$NT)	Under 20 000	64	23.0
	20 001–30 000	48	17.3
	30 001–40 000	68	24.5
	40 001–50 000	21	7.6
	50 001–60 000	12	4.3
	60 001–70 000	9	3.2
	Over 70 001	24	8.6
	Others (unemployed)	32	11.5
Residency	North	219	78.8
	Middle	26	9.4
	South	21	7.6
	East	8	2.9
	Others (overseas)	4	1.4
Travel party	Alone	18	6.5
	Colleague	58	20.9
	Family	121	43.5
	Tour group	4	1.4
	Relatives/friends	73	26.3
	Others	4	1.4

contact priority grid. The results show that the I–S measurement presents acceptable reliability and validity for further analysis. Thus, based on the evaluation of the degree of importance (y -axis) and the level of satisfaction (x -axis), tourist experiences with the brand contact elements are revealed, as presented in Table 4. The co-ordinates could then be divided into four areas based on the data mean ($x = 3.777$; $y = 4.014$) (Yang *et al.*, 2009) in the brand contact priority grid, as shown in Figure 5.

As mentioned earlier, to precisely group the elements in the same quadrant, it was necessary to perform an ‘improvement index’ analysis to prioritize elements and make appropriate decisions regarding the areas for improvement. The ranking outcome of the contact elements was

calculated (please refer to Equation (3)) and listed in Table 4. The results of the I–S model analysis, combined with the improvement index analysis, provide more explicit suggestions regarding future resource allocation decisions. Clearly, the service-oriented contact elements (denoted by the numbers 9, 10 and 11, which correspond to the numbers used in Tables 3 and 4) in the quadrant of Disgusters are the ‘prior-improved contact elements’ that need to be improved before others.

Results of identifying critical brand contact elements

According to the results illustrated in Figures 4 and 5, good service in terms of staff efficiency,

Table 3. Categorization of contact elements by Kano's model and customer satisfaction coefficient

Number	Brand contact elements	A	O	M	I	R	Q	Categorization	C(1)	C(2)
1	Varied hot spring bath pools	17.266	13.669	47.482	19.784	0.360	1.439	must-be	0.315	-0.623
2	Varied hot spring facilities	16.906	14.029	40.647	25.180	1.439	1.799	must-be	0.320	-0.565
3	Varied local cuisine	19.784	21.223	30.935	25.540	0.719	1.799	must-be	0.421	-0.535
4	Characteristic planning of the surroundings	29.856	18.705	36.331	15.108	0.000	0.000	must-be	0.486	-0.550
5	Ethnic customs	32.374	20.863	19.784	26.619	0.000	0.360	attractive	0.534	-0.408
6	Unique history and culture	29.137	27.698	16.906	24.820	0.719	0.719	attractive	0.577	-0.453
7	Specific natural scenery	33.813	21.942	13.309	29.50	0.719	0.719	attractive	0.566	-0.358
8	Variety of recreational activities	28.777	24.101	18.705	26.978	0.719	0.719	attractive	0.536	-0.434
9	Good service in terms of efficiency of the staff	19.065	30.576	24.101	24.820	0.360	1.079	one-dimensional	0.504	-0.555
10	Good service in terms of attitude of the staff	21.942	30.935	25.180	21.583	0.000	0.360	one-dimensional	0.531	-0.563
11	Good service in terms of willingness of the staff	17.986	32.734	28.777	19.784	0.00	0.719	one-dimensional	0.511	-0.620
12	Hospitable and friendly residents	25.180	19.065	37.777	17.266	0.360	0.360	must-be	0.446	-0.572
13	Physical and mental health associations	28.058	14.748	31.295	23.741	0.719	1.439	must-be	0.438	-0.471
14	Body and mind relaxation association	18.345	14.388	13.309	52.518	1.079	0.360	indifferent	0.332	-0.281
15	Stress-relief associations	22.302	14.748	12.230	48.921	1.439	0.360	indifferent	0.377	-0.275
16	Emotional-exchange associations	21.583	16.547	8.633	51.079	1.079	1.079	indifferent	0.390	-0.257
17	Happiness associations	34.532	17.626	16.547	30.216	0.360	0.719	attractive	0.527	-0.345

A, attractive quality attribute; O, one-dimensional quality attribute; M, must-be quality attribute; I, indifferent quality attribute; R, reverse quality attribute; Q, invalid quality attribute; C(1), increasing customer satisfaction coefficient; C(2), decreasing customer satisfaction coefficient.

attitude and willingness are the elements that can be simultaneously recognized as 'efficient-improved contact elements' and 'prior-improved contact elements' from the point of view of tourists. Thus, these are

the critical brand contact elements that the Wulai Hot Springs destination authority should consider as first priority to provide tourists with a quality brand contact impression.

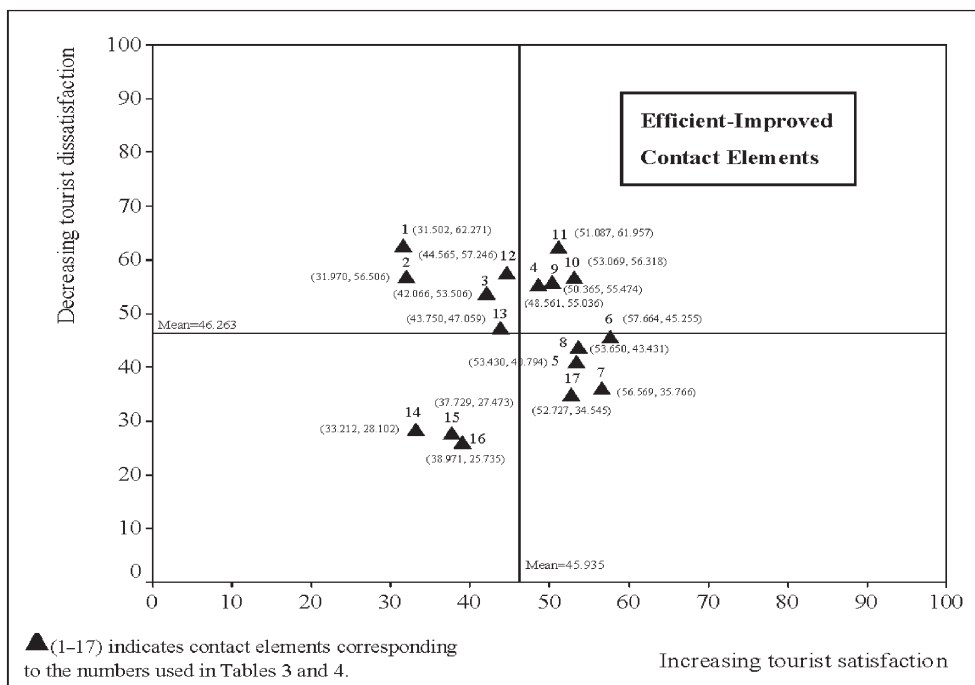


Figure 4. The display of customer satisfaction coefficient analysis.

CONCLUSIONS AND MANAGERIAL IMPLICATIONS

According to Kano’s categorization, the results show that six contact elements are must-be quality attributes. Brand contact elements classified as must-be qualities are considered as ‘basic features’, i.e. their absence will cause customer dissatisfaction (Kano *et al.*, 1984). Thus, aside from facility-oriented contact elements, two other elements (characteristic planning of surroundings and hospitable and friendly residents) are considered essential environmental features in influencing tourist perceptions of a destination. Kitnuntaviwat and Tang (2008) noted that the latter (tourist perceptions of positive attitudes in local residents) should particularly support tourism development at a destination. In addition, the model categorized four elements of atmosphere-oriented contact and one element of association-oriented contact as attractive quality attributes. Attractive quality attributes possess the greatest potential to become a destination’s ‘competitive weapon’ in reaching ‘beyond expectations’ (Yang, 2005). Attractive quality elements will cause tourists to be

pleasantly surprised, thereby enhancing their satisfaction. In this study, these atmosphere-oriented contact elements, which are the result of interactions between the individual and the physical environment (Heide and Grønhaug, 2006), play a powerful role in developing specific tourism niches. In summary, because quality elements vary over time, the purpose of Kano’s model is to determine the concerns of a destination for tourist encounters. Lastly, the elements in the quadrant (denoted by the numbers 4, 9, 10 and 11) that could simultaneously greatly increase customer satisfaction and decrease customer dissatisfaction for the Wulai Hot Springs destination are ‘efficient-improved contact elements’.

Concerning the results of the I-S model analysis with the brand contact priority grid, this study has found that the atmosphere-oriented elements in the Delighters area (that meet tourist requirements) produce positive experiences regarding the destination. In particular, the improvement index used in this study provides information for destination authorities to use in resource-allocation decisions. Specifically, service-oriented contact elements (denoted by the numbers 9, 10 and 11) must be improved,

Table 4. Brand contact element label, co-ordinates and improvement index

Number	Brand contact elements	Co-ordinates (satisfaction, importance)	Improvement index (ranking)
	Facility-oriented contact		
1	Varied hot spring bath pools	(3.709, 3.874)	-0.043 (12)
2	Varied hot spring facilities	(3.680, 3.881)	-0.052 (10)
3	Varied local cuisine	(3.730, 3.957)	-0.057 (8)
	Atmosphere-oriented contact		
4	Characteristic planning of the surroundings	(4.000, 4.108)	-0.026 (15)
5	Ethnic customs	(4.090, 4.270)	-0.042 (13)
6	Unique history and culture	(4.162, 4.324)	-0.037 (14)
7	Specific natural scenery	(4.090, 4.155)	-0.016 (17)
8	Variety of recreational activities	(4.043, 4.144)	-0.024 (16)
	Service-oriented contact		
9	Good service in terms of willingness of the staff	(3.745, 4.151)	-0.098 (3)
10	Good service in terms of attitude of the staff	(3.773, 4.243)	-0.109 (1)
11	Good service in terms of efficiency of the staff	(3.734, 4.162)	-0.103 (2)
12	Hospitable and friendly residents	(3.806, 4.101)	-0.072 (5)
	Association-oriented contact		
13	Physical and mental health association	(3.406, 3.763)	-0.095 (4)
14	Body and mind relaxing association	(3.457, 3.626)	-0.047 (11)
15	Stress-relief association	(3.453, 3.662)	-0.056 (9)
16	Emotional-exchange association	(3.680, 3.939)	-0.066 (6)
17	Happiness association	(3.651, 3.892)	-0.062 (7)

with priority given to those in the Disgusters category as 'prior-improved contact elements', followed by the association-oriented and facility-oriented elements in the Annoyances category.

Finally, because the critical brand contact elements that simultaneously possess *efficient-improved* and *prior-improved* quality attributes are all associated with the service-oriented contacts, service providers operating businesses at the Wulai Hot Springs should improve service contacts by inculcating the service-quality philosophy in their employees, particularly the frontline staff. This is because service-oriented contacts are more dynamic and dominated by the labour-intensive service providers (e.g. shopping stores, hotels and restaurants) compared with the other three kinds of brand contacts (i.e. facilities, atmosphere and association-oriented contacts). Therefore, it is better to train employees to display the skills, the motivation and the authority for service delivery and recovery.

Thus, this paper suggests that service providers within the hot spring destination area make serious efforts related to service contact management, which contributes to a higher-quality brand contact experience for tourists.

APPLICATION OF THE PROPOSED FRAMEWORK FOR TOURISM MARKETERS

This study provides a framework for tourism marketers or practitioners to identify the critical brand contact elements of tourist destinations. Thus, the application of the proposed framework (as shown in Figure 6) is described as follows.

Step (1): Identification of contact elements of a tourist destination. In the first phase, tourism marketers might work in public or private organizations responsible for the tourism development tasks of a tourist destination (e.g. tourism authority of centre and local

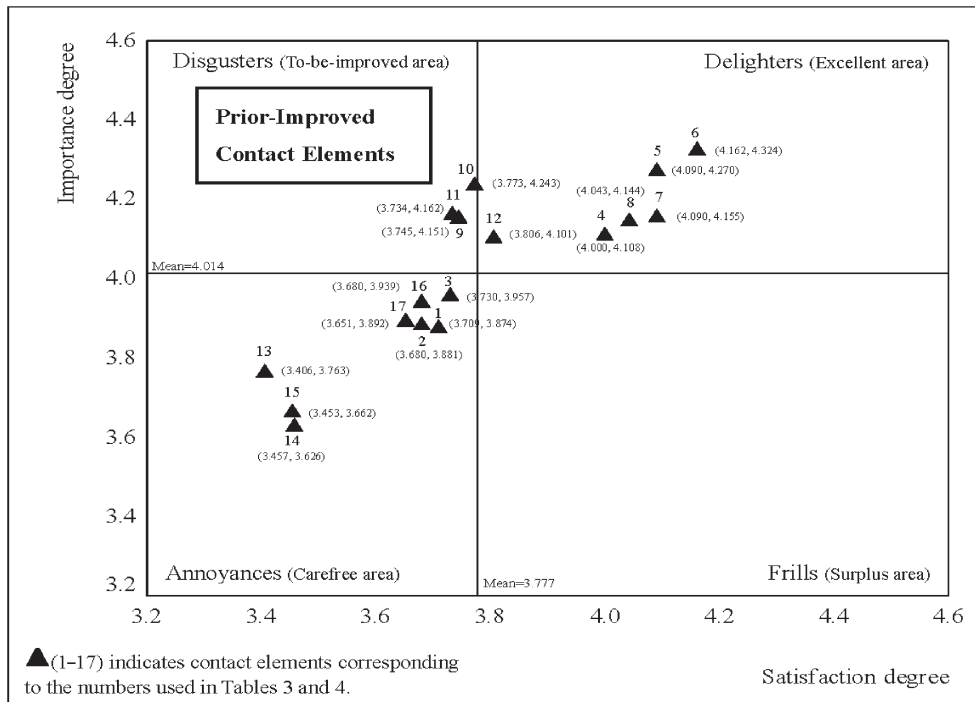


Figure 5. The display of the I-S model analysis with the brand contact priority grid.

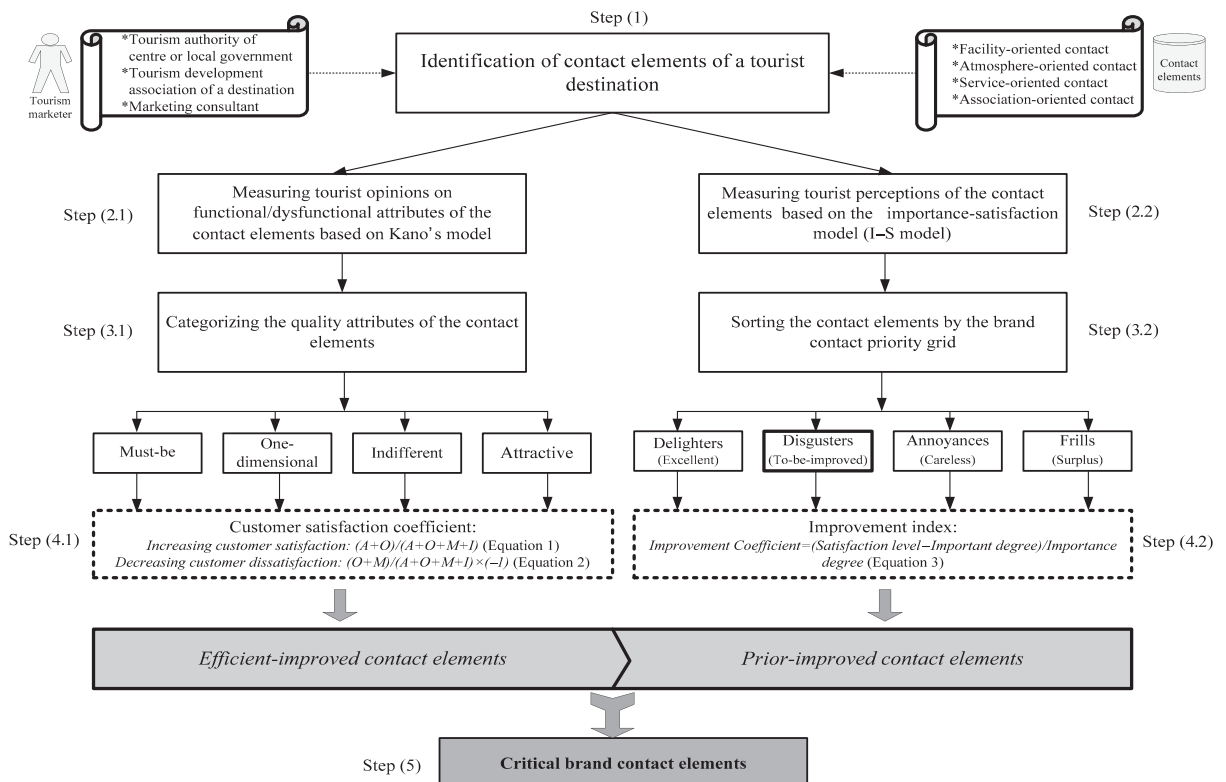


Figure 6. Process of the proposed framework to identify critical brand contact elements.

government or tourism development association of a destination) or be requested by an authority to improve or promote a tourist destination (e.g. marketing consultancy company or research institution). Aside from collecting the secondary data to obtain the contact elements, the focus-group interview is another helpful tool for tourism marketers to identify all the contact experiences that the tourist notices from a destination. In the procedure of the interview, the four contact realms of a destination designed in this study are a useful method in extracting the tourist contact experience.

Accordingly, if the contact elements are identified, in the second phase, there are two sub-steps for designing a questionnaire to investigate the target tourist destination.

Step (2.1): Measuring tourist opinions on functional/dysfunctional attributes of the contact elements based on Kano's model. Here, the Kano measurement is designed based on the obtained contact elements, consisting of pairs of one positive and one negative question each.

Step (2.2): Measuring tourist perceptions of the contact elements based on the I-S model. Subsequent to the Kano measurement, each subject is also asked to rate the degree of importance and satisfaction associated with each obtained contact element.

In the third phase, the collected data regarding the contact elements are categorized and sorted in the following two ways.

Step (3.1): Categorizing the quality attributes of the contact elements. Based on the data from the Kano measurement, the tourist requirements of the contact elements towards a destination are categorized into different quality attributes.

Step (3.2): Sorting the contact elements by the brand contact priority grid. Based on the data from the I-S measurement, the tourist perceptions of the contact elements towards a destination are sorted into different quadrants of the brand contact priority grid.

In the fourth phase, customer satisfaction coefficient and improvement index are calculated separately to conclude the efficient-improved and the prior-improved contact elements.

Step (4.1): Calculating customer satisfaction coefficient. The four kinds of quality attributes of contact elements are used to calculate the

customer satisfaction coefficient of the elements by the Equations (1) and (2). Thus, the contact elements could concurrently increase tourist satisfaction and decrease tourist dissatisfaction, namely the efficient-improved contact elements.

Step (4.2): Calculating improvement index. The improvement coefficient of each contact element is calculated by the Equation (3) so that it could also provide the evidence in comparison with Disgusters, which are those that tourists think most required improvement, namely the prior-improved contact elements.

Step (5): Critical brand contact elements. Finally, the contact elements simultaneously located at the quadrants of *efficient-improved* and *prior-improved* in the two matrices emerge as the critical brand contact elements that provide tourism marketers as references to further improve tourist brand impressions regarding a tourist destination.

In summary, the present study contributes a framework for tourism marketers to discover the critical brand contact elements to improve and offers tourism marketers important information about managing and improving the service quality of a tourist destination. This framework also could be applied in tourism-related industries (e.g. hospitality industry and travel agency industry). Along with the use of I-S analysis to make improvements of the service offerings as carried out by most previous studies, the main strength of this framework is the use of Kano's two-dimensional quality model to explore the critical brand contact elements of a tourist destination. Suggestions for further use of Kano's model and the I-S model are discussed below for improvements for future research.

Regarding Kano's model, Yang (2005, p. 1129) suggested that 'Kano's model can therefore be refined by taking into account the importance of certain quality attributes', namely *refined Kano's model*. That is, quality attributes can be divided into more precise categories (Yang, 2005). Thus, must-be quality attributes can be classified as critical and necessary, one-dimensional quality attributes can be classified as high/low value added, indifferent quality attributes can be classified as potential and carefree and attractive quality attributes can be classified as highly/less attractive. For example, as in the

hot spring destination case of this study, ethnic customs and natural scenery are attractive quality requirements. However, most tourists consider ethnic customs to be more important than specific natural scenery. Therefore, promoting ethnic customs will improve tourist satisfaction more than promoting the specific natural scenery of a tourist destination. From this point of view, the equations for calculating customer satisfaction coefficient should be reconstructed to enable tourism marketers to obtain much more valuable information regarding the efficient-improved contact elements.

Considering the I-S model, as discussed by Oh (2001) and Leong (2008), when conducting an I-S analysis to obtain a more accurate analysis of the elements, the three kinds of approaches from different viewpoints are recommended. Since most of the I-S analysis used the data mean for the data-centred approach, the scale mean used for the scale-centred approach and the median value of the mean score for the median-centred approach should be considered in future research. That is, the incorporated use of all the three approaches would instil greater confidence in resulting conclusions (Leong, 2008). For example, the sum of the number of times each element used all the three approaches would be listed according to their quadrants. For certain elements that fell under the same quadrant regardless of the approach selected, it is reasonable to conclude that those elements belong to the particular quadrant that facilitates tourism marketers to clarify the prior-improved contact elements.

Lastly, as suggested by Matzler *et al.* (2004), the integrated applications of Kano's model and the I-S analysis correctly estimates the relative impact of each quality attribute for high and low performance on customer's overall satisfaction towards product and service offerings (such as the contact elements used in this study). Thus, in the study by Matzler *et al.* (2004), the asymmetric relationship between attribute-level performance and overall performance is confirmed by performing a regression analysis with dummy variables, which could provide clearer directions for tourism marketers to effectively allocate the resources and set the right priorities in tourist satisfaction management.

LIMITATIONS AND DIRECTIONS FOR FUTURE RESEARCH

The limitations of this research, addressed as follows, provide a direction for future research. First, future research could emphasize one target destination but collect data from tourists in different positions (onsite, current tourists versus pre-site and potential tourists); in terms of spatial and time considerations, this provides another perspective that increases the understanding of brand contact process for a destination. Second, many personal factors (e.g. personality and age) and stimulus factors (e.g. volume of information) that may influence a tourist's brand contact experience (Jenkins, 1999) should be considered in future research. Third, because the brand contact scale using Kano's model is verified only using the sampling sources of the Wulai Hot Springs destination in this study, the generalisability and external validity of the measurements require additional empirical evidence from other hot spring destinations.

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