Administrative Effects of Chinese Arrivals in Taiwan - the Travel Agencies' Prospects

Ruey-Chyn Tsaur and Chyoug-Hwa Chen

Tamkang University

Abstract

A sophisticated administrative design that considers the number of arrivals, tourism quality, economic contributions, and social benefits is an essential strategy for sustainable tourism. Taiwan's thoughtful and comprehensive design for managing the Chinese inbound market to maintain tourism quality, as well as prevent excessive arrivals and low-price groups, provides a strong model. This study introduces importance performance analysis, impact-range performance analysis, and impact-asymmetry analysis to conduct empirical research on Taiwan's tourism administration. By examining travel agencies' satisfaction with various policies, and implementing their suggestions, the policies in Taiwan's case explain theoretical results where countermeasures that diverge from the expectations of the travel agencies are prioritized for reconsideration. The prioritizing analysis also provides decision makers and authorities with information to improve the quality of tourism administration. Finally, this study illustrates that travel agencies are likely to support important policies. Accompanied by such support, the countermeasures can then achieve the administrative goals.

Keywords: Importance performance analysis, impact range-performance analysis, impact-asymmetry analysis, tourism administration, Taiwan inbound market.

1. Introduction

The administrative mechanism is an inevitable issue when discussing the advantages and disadvantages of tourism development. For the purposes of enhancing travel quality, boosting number of arrivals, driving economic growth, and diminishing social impacts, an administration mechanism is a familiar approach to guide and maintain sustainable tourism. An appropriate mechanism is not only useful for attaining administrative goals but also for business benefits. Business operations and characteristics of travel products should be considered while designing the mechanism. Even though administrative approaches are primarily used for balancing arrivals, maintaining travel quality, and other specific objectives (McKercher [35], Whyte [57]), efforts to promote the industry and its economic impact are considerable. Some studies argue against administrative mechanisms because they are inefficient and conflict with market mechanisms (Hughes [20]).

In most markets, customer satisfaction is one of the core issues for a business whose goals include prosperity and sustainability. Likewise, the tourism industry, which is the object of the administration, should play a part in evaluating the administration mechanism. The industry's feedback provides a reference point for examining whether the mechanism is introducing distortion into the market. By adjusting the corresponding policies, a better allocation of resources can be achieved as well.

The Importance-Performance Analysis (IPA), Impact Range-Performance Analysis (IRPA), and Impact-Asymmetry Analysis (IAA) are well-known approaches to analyze customer satisfaction. The techniques are applicable for identifying the attributes of services, and then improving the attributes based on their priority order. The results suggest a more efficient allocation of limited resources, and assist with the modification of strategies and projects to increase executive performance and competitive strength (Johns [22], Levenburg and Magal [26], Matzler, Sauerwein, and Heischmidt [32], Matzler et al. [33], Sampson and Showalter [47]). IPA was introduced by Martilla and James [30] and has been widely applied in tourism studies, such as tourism policy, travel products and services, the identification of tourism industry brand names, and tourism destination competitiveness (TDC) (Azzopardi and Nash [2], Deng [7], Eising [10], Enright and Newton [11], Evans and Chon [13], Hudson, Hudson and Miller [19], Joppe, Martin, and Waalen [23], Litvin and Ling [27], Oh [43], O'Leary and Deegan [42], Pike and Ryan [46]). Mikulić and Prebezac [37] progressed to IRPA and IAA to improve the interpretation of customer satisfaction. These enriched approaches provide a practical solution to the possible misclassification of attributes and the asymmetric relationship between performance and customer satisfaction. The IPA is widely used for customer satisfaction issues, such as food (Back [3]), convention (Lee and Min [25]), education (Mikulić, Duzević, and Baković, [36]), OTA (Ye et al. [59]), and prioritizing improvement (Mikulić and Prebezac [37]).

IRPA and IAA illustrate the connection between performance and customer satisfaction, but the analysis of importance has not been addressed. Mikulić and Prebezac [37] consider that importance is an undefined concept and its measurement is problematic; also, the perception of importance is different from that of customer satisfaction. Several studies argue that the explanation of importance via IPA could greatly diminish the effects of the forecast because of the biases and lack of validity of the behavior observation (Lowenstein [28], Smith [49], Tarrant and Smith [50]). Nevertheless, similar phenomena occur in tourism related studies (Oh [43]). Research that attempts to reflect the tourism industry's approval towards administration is relatively scarce, as is importance analysis within the designs. To reach the goals of a healthy market and flourishing industry, the administration design should take the importance of the policy, as well as industry satisfaction, into consideration.

The tourism supply chain creates job opportunities by combining the services and infrastructures of several segments. The public sector benefits from the consumption of travel products and services because they increase tax revenue and tourist expenditures. Both the private and public sectors profit from tourism development (Choi and Sirakaya [6], Diedrich and Garcia-Buades [8], Haley, Snaith, and Miller [15], Huh and

Table 1: The sampling and response.

Items	Strata 1	Strata 2	Strata 3	Strata 4	Total
Number of agencies					
Population	6	14	28	167	215
Sample	6	13	28	107	154
Response rate	100.0%	92.9%	100.0%	64.1%	71.6%
Number of receiving tourists (2014)					
Population	433,894	602,556	523,354	442,851	2,002,655
Sample	433,894	567,898	523,354	322,647	1,847,793
Response rate	100.0%	94.2%	100.0%	72.9%	92.3%

Vogt [21], Lee, Kim, and Kang [24], McGehee and Andereck [34], Sharma et al. [48], Tovar and Lockwood [52], Vargas-Sánchez, de los ngeles Plaza-Meja, and Porras-Bueno [55], Williams and Lawson [58]). Aside from the market mechanism, the tourism administration is responsible for implementing policies to ensure quality and market order. The situation in Taiwan demonstrates an empirical case. Taiwan opened its market to Chinese tourists in 2008, and the Chinese arrivals soon occupied 40.1% (4,184,102 arrivals) of the total inbound number (Taiwan Tourism Bureau) in 2015. An elaborate administrative mechanism, along with an open policy, was developed by the Taiwanese tourism authority. The objective of the mechanism is to deter unethical operations by travel agencies. This study introduces IPA, IRPA, and IAA to examine the value of this administration from Taiwanese travel agencies' perspectives. The results illustrate the satisfaction level of the agencies towards the attributes of the administration. The prioritization could provide support to decision makers for essential revisions. This study further addresses the connection between support and importance, and the validity of importance is verified by the support from the travel agencies. The synergy between the administration and the travel agencies, combined with satisfaction and support, could generate a solid approach for the administration.

2. IPA, IRPA, and IAA

2.1. Debates on IPA

By plotting a two-dimensional graph using the scores of Importance and Performance, IPA demonstrates the priority of the attributes (Figure 1). The attributes located in Dimension I are more important and well-performing and should be maintained. Those in Dimension II are less important but have been over-resourced. The attributes in Dimension III have been recognized as neither important nor well-performing. The attributes in Dimension IV need close attention, as they are relatively important but not well-performing (Van and Immerwahr [54]).

The application of IPA is concise and convenient. Nevertheless, the processes have been criticized for leading decision makers to developing inexact strategies or making

inefficient resource allocations. The debates on IPA include attribute misclassification and misunderstanding of the relationship between attributes and customer satisfaction.
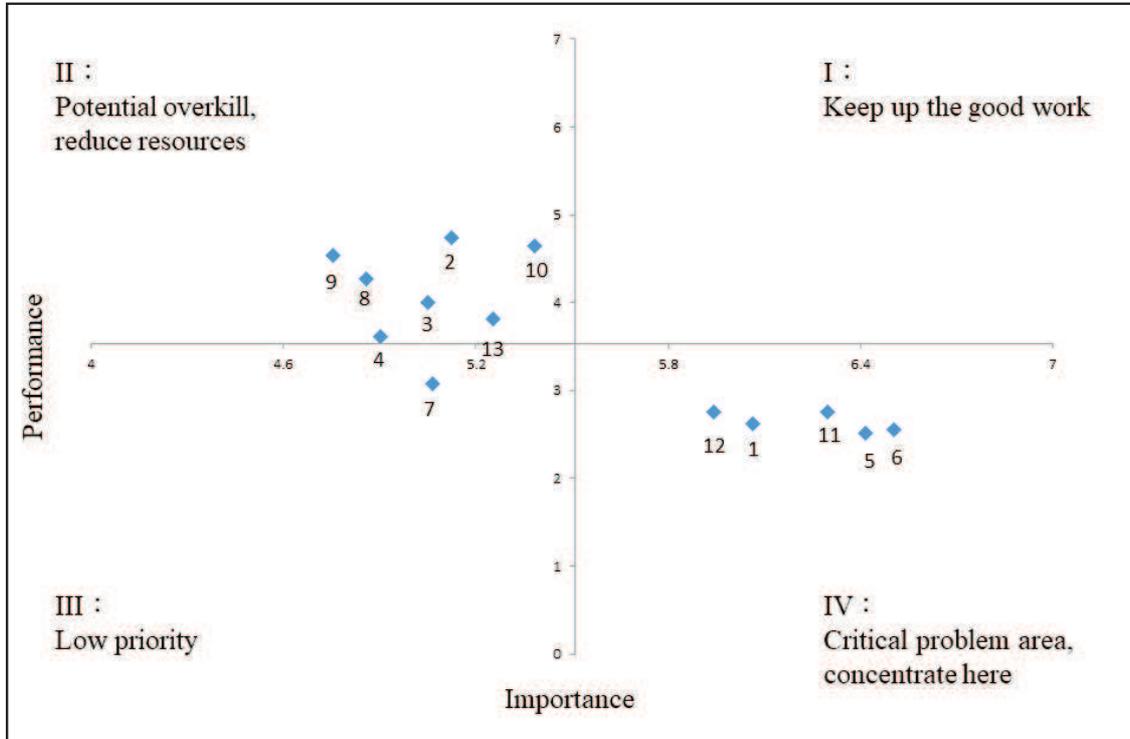

Figure 1: Importance-Performance Analysis (IPA).

First, there may be a risk of misjudging the dimension categorizing. The center of the coordinates, data-centered or scale-centered, is determined by the purpose of the research. The point of origin of these two approaches is an average. Nonetheless, a median is more appropriate to measure central tendency than an average, when the distribution of the attribute is non-normal. Therefore, there is a risk of misjudgment resulting from categorizing dimensions using averages. The priority and order from an average point of origin is occasionally misjudged for attributes grouping in one or two dimensions. Consequently, categorizing observations into incorrect dimensions would cause unsuitable or improper decisions (Oh [43]).

Second, there is an asymmetric relationship between attributes and customer satisfaction. According to Motivation-Hygiene theory (Herzberg et al. [17], Herzberg [18]), employees would be dissatisfied if the Hygiene factor was not present. Conversely, the presence of the Hygiene factor only keeps employees from being dissatisfied. Even an excess of the Hygiene factor does not produce motivational effects. On the other hand, employees would not be dissatisfied because of an insufficient Motivation factor. However, when the Motivation factor is present, employees would be encouraged and inspired

to improve their performance, and to increase production as well. The quality attributes are like the Hygiene factor, because the attributes demonstrate customer satisfaction via Importance and Performance. Customer satisfaction is not the same as the result produced by the Motivation factor. Based on this theory, the reverse side of dissatisfaction is not satisfaction, which indicates there is not a symmetrical relationship between Performance and customer satisfaction. The character of the attributes needs to be confirmed to avoid mistakes in applying IPA (e.g., Bartikowski and Llosa [4], Busacca and Padula [5]; Eskildsen and Kristensen [12], Fuchs and Weiermair [14], Matzler and Sauerwein [31], Matzler et al. [33], Tontini and Silverira [51]).

Thus, the definition of Importance is not distinctive. It is not clear whether the Importance of quality attributes is the result of a single attribute or overall satisfaction. The definition for different situations should be established based on recognition of different attributes. Furthermore, Importance is mostly scored based on customers' perceptions. This makes it subject to emotional or subjective interference.

Fourth, there is an impact on the validity requirement because of subjective valuation. The validity of Importance is imperative in IPA, and must be measured under various definitions (Oh [43]). The most simple and instinctive measurement is a direct narrative, which is the norm in citizen surveys guidebooks (Miller and Kobayashi [38]). A lot of studies have suggested that the Importance of consumption behavior may not exactly explain the overall satisfaction of customers, or the variation of purchasing behavior (Myers and Alpert [40], Neslin [41], Oliver [44], Myers [39], Allen and Rao [1]). The disparity is because the customers are not aware of or are reluctant to admit their real idea or preference (Myers and Alpert [40]). The Importance of public administration is influenced by the dissatisfaction or satisfaction of citizens, such as complaints about policies or reliance on authorities (Lyons, Lowery, and DeHoog [29], Van de Walle and Bouckaert [53]). The indirect principles, which are analyzed using statistical approaches to address the relationship of between Importance and Performance, can correct the issue of direct valuation. For example, Van and Immerwahr [54] established a regression model with Performance of attributes (independent variables) and overall Performance (dependent variable) to simulate Importance. The indirect principle can limit the cost of the survey, and the procedure must conform to the statistical hypotheses. The forecast derived from the statistical model is likely to differ from empirical circumstances.

Fifth, a managerial perspective in the models is absent. IPA focuses on the customer's satisfaction and suggests the priority levels to decision makers. Importance is also presented from the customer's and managerial perspective. The absence of a managerial perspective in the design and analysis could not guarantee higher customer satisfaction after revision. The contribution on overall satisfaction could not be measured even with higher satisfaction.

2.2. The application of IRPA and IAA

Proposed by Mikulić and Prebezac [37], IRPA and IAA focus on solutions for the asymmetric relationship between Performance of attributes and customer satisfaction.

They suggest the Range-Impact on Overall Customer Satisfaction (RIOCS) and improve the application of priority for the modification of quality attributes.

Impact Range-Performance Analysis (IRPA) is an approach where a Penalty-Reward Contrast Analysis (PRCA) is conducted with two sets of dummy variables, an Attribute Performance Score (APS) for each attribute. The first APS set for an attribute is assigned 1 for lowest Performance, and 0 otherwise. Conversely, the second APS set is assigned 1 for highest Performance, and 0 otherwise. A regression model is established using these two dummy variables (independent variables), and the Overall Customer Satisfaction (OCS) is the dependent variable. The set of two dummy variables is regressed on OCS, thus resulting two regression coefficients which represent decrease or increase in OCS for every attribute. The coefficients are called the Reward Index (in the case of high attribute performance) and the Penalty Index (in the case of low attribute performance). These indices present the variation of OCS, and a summation can be shown as Range of Impact on Customer Satisfaction (RIOCS). Hence, a two-dimensional plot can be generated with RIOCS as the horizontal coordinate and Performance as the vertical coordinate.

According to the results from IRPA, Impact-Asymmetry Analysis (IAA) further constructs a graph with the Impact-Asymmetry Index (IA) as the horizontal coordinate and RIOCS as the vertical coordinate. When calculating the proportion of penalty and reward indices to the entire range of impact scores, the Satisfaction-generating potential (SGP) and Dissatisfaction-generating potential (DGP) are produced. The parameters and the equations are as follows:

$$\text{SGP}_i = r_i/\text{RIOCS}_i \tag{2.1}$$

$$\text{DGP}_i = p_i/\text{RIOCS}_i \tag{2.2}$$

$$\text{IA}_i = |\text{SGP}_i| - |\text{DGP}_i| \tag{2.3}$$

Where,

$$\text{RIOCS}_i = |r_i| + |p_i| \tag{2.4}$$

$$|\text{SGP}_i| + |\text{DGP}_i| = 1 \tag{2.5}$$

On the IAA plot, the RIOCS coordinate can be divided into three levels: low, moderate, and high. Mikulic and Prebezac [37] suggested the IA coordinate could be categorized into five levels: delighters ($IA > 0.8$), satisfiers ($0.8 \geq IA > 0.2$), hybrids ($0.2 \geq IA > -0.2$), dissatisfiers ($-0.2 \geq IA > -0.8$), and frustraters ($-0.8 \geq IA$).

3. Taiwan Administration Case

3.1. Data and results of IPA

Tourism policy is closely linked to the social and economic environment (Dredge [9]), including the structure and cooperation of related authorities, coordination within the organization, the stakeholders (the tourism industry and employees, tourists, local citizens and interest groups) (Hall and Tribe [16], Wang [56]). To protect a sustainable tourism environment from unethical competition, the articles and requirements of

the Taiwanese administration mechanism related to Chinese tourist groups incorporate points of view arising from discussions of the stakeholders. The wide-ranging managerial policies include a quota for arrivals, methods of inspection, reception standards, and negotiation with Chinese tourism sectors. In this study, we conducted a survey of 215 Taiwanese travel agencies, who have valid permission to organize Chinese groups, to collect their opinions on how the administration mechanism affects Chinses tourist groups. There are four strata according to the receiving volume (strata 1: above 60,000 tourist groups; strata 2: from 30,001 to 60,000 tourist groups; strata 3: from 12,001 to 30,000 tourist groups; strata 4: 12,000 tourist groups and below).

There were 13 attributes, which represent 13 policies, and an overall satisfaction attribute in the questionnaire. Each of the 13 attributes contains Importance, Performance, and Support components. The Support component is to examine the relationship with the valuation of Importance. The five-point Likert scale is used for each attribute. The respondent of each agency had been specifically designated as the superintendent in charge of the Chinese inbound groups practice. The effective response rate was 92.3% (Table 1). The meanings of the 13 attributes (policies) in the questionnaire are:

1. Reception standard: The stipulation of a minimum reception standard (in amount of money) in the regulations.

2. Report obligation: The requirement for agencies to report the reception conditions (such as tour guides, vehicles, accommodations) before the arrival of the tourist groups to the tourism authority. When there is alternation of conditions, an emergency, or illegal events, the agencies should report these as well.

3. Number of permits: The number of permits allowed for receiving Chinese tourist groups. With periodic reviews, a suspension may be announced to confine the permits to a reasonable number for the market.

4. Quota on tourists: The policy of a group tourist quota. Considering reception capacity, the quota is linked with the visa issue program.

5. Prohibition against zero-tour: The measures taken to prohibit zero-tours since unethical operations have been recognized as a cause of tourist complaints.

6. Assistance on receivables: Assistance provided to agencies to help them deal with the problems of delayed payments.

7. Number of shopping stops: By confining the number of shopping stops to the length of stay, sightseeing arrangements will not be excluded from the tight schedule because of too many shopping stops.

8. Inspection scale: The range, frequency, methods, and objects of the administrative inspection are likely to be adjusted to cater to the policy.

9. Tax inspection scale: The periodical or non-scheduled tax inspection could expose tax evasion and compel the trades to be legitimized.

10. Punishment standard: Punishment will cause the loss of income and damage to the reputation of the agency. A good design should demonstrate the strength of the regulations.

Table 2: The IPA and Support scores.

Attributes	Importance	Performance	Support
1. Reception standard	6.06	2.62	4.96
2. Report obligation	5.12	4.74	5.42
3. Number of permission	5.05	4.00	5.16
4. Quota on tourists	4.90	3.61	3.95
5. Prohibition against zero-tour	6.42	2.51	6.18
6. Assistance on receivables	6.51	2.55	6.36
7. Number of shopping stops	5.06	3.07	5.14
8. Inspection scale	4.86	4.27	5.14
9. Tax inspection scale	4.75	4.54	4.69
10. Punishment standard	5.38	4.65	5.00
11. Regulations on grouping agencies	6.30	2.75	6.56
12. Negotiation of both sides	5.94	2.75	6.41
13. Quality of products	5.25	3.82	5.42
Overall average	5.51	3.53	5.41

11. Regulations on grouping agencies: A comprehensive administration that echoes the regulation of destinations is one of the countermeasures to maintain business order in the destinations.

12. Negotiation of both sides: The effects of discussions and agreement by the authorities of both the grouping and receiving sides. The negotiation is to guarantee the benefits of travel agencies from grouping and destination.

13. Quality of products: The results to promote the (high) quality of tourist products, which is from the efforts to guide, subsidize, and regulate processes.

The Cronbach's α for Importance, Performance, and Support is 0.849, 0.909, and 0.884 respectively. The values verify internal consistency, stability, and reliability. The average score of Importance is 5.51, which is much higher than the average score of Performance 3.53 and close to the average score of Support 5.41 (Table 2). The correlations between Performance and Importance, and between Performance and Support are -0.809 and -0.565 respectively. While the correlations related Performance are both negative, the Importance and Support is highly correlated (correlation=0.784). According to the IPA plot (Figure 1), the attributes are mainly separated into two groups of high and low Importance. In other words, the Importance of the policies valued by the travel agencies is divided into two extremes. The eight attributes that scatter in the low Importance areas, Dimensions II and III, are classified as requirements for travel quality. The five attributes in Dimensions I and IV in the high Importance areas are observed as policies related to travel agency profits. When compared to the scores of Performance, the scores of agency profits are lower than those of travel quality. To sum up the valuation of the Performance and Importance, the travel agencies consider attributes of agency profits

to be more important than travel quality, but the Performance of agency profits is less than travel quality. Authorities especially need to concentrate on and look for ways to improve the attributes in dimension IV.

Figure 2: Impact Range-performance Analysis (IRPA).

3.2. Results of IRPA

The attributes are divided into the "Revenue related" (high Importance) and "Travel quality" (low Importance) groups, which are based on the IPA plot. The IRPA and PRCA are then applied to each of the groups to reveal the RIOCS (Table 3). When compared to Performance, Travel quality has wider range than Revenue Related (Figure 2). It implies that travel agencies have less difference of opinion towards Revenue Related attributes. Among the attributes of Revenue related, "6. Assistance on receivable" (RIOCS = 0.39) and "1. Reception standard" (RIOCS = 0.34) are attributes with greater impact. The "12. Negotiation of both sides" (RIOCS = 0.30), "5. Prohibition against zero-tour" (RIOCS = 0.25) and "11. Regulations on grouping agencies" (RIOCS = 0.24) have relatively lower impact.

The highest and most outstanding impact attribute of Travel quality is "13. Quality of products" (RIOCS = 0.74). "4. Quota of tourists" (RIOCS = 0.31) and "10. Punishment standard" (RIOCS= 0.25) are higher than the average of RIOCS. In the five attributes below the average, "7. Number of shopping stops" (RIOCS=0.06), and "9. Tax inspection scale" (RIOCS=0.05) are attributes with the lowest impact on satisfaction.

3.3. Results of IAA

Looking at the IRPA, each point of the attributes as well as the whole impact range is rational. According to the average of RIOCS, the IAA then divides the impact range (as the horizontal coordinate) into low, moderate, and high impact intervals. In this study, the low, moderate, and high impact area for Revenue Related attributes are

Table 3: The IRPA and IAA scores.

Attribute	ri	pi	RIOCS	SGP	DGP	IA	Factor	Pref.
Revenue related ($R^2 = 0.434$, $F(10, 143) = 10.946$)								2.64
1. Reception standard	-0.188	-0.154	0.34	-0.55	-0.45	0.10	hybrids	2.62
5. Prohibition against zero-tour	0.234	-0.011	0.25	0.96	-0.04	0.91	delighters	2.51
6. Assistance on receivables	0.194	-0.191	0.39	0.50	-0.50	0.01	hybrids	2.55
11. Regulations on grouping agencies	0.024	-0.211	0.24	0.10	-0.90	-0.80	dissatisfiers	2.75
12. Negotiation of both sides	0.213	-0.084	0.30	0.72	-0.28	0.43	satisfiers	2.75
Travel quality ($R^2 = 0.468$, $F(16, 137) = 7.530$)								4.09
2. Report obligation	0.141	-0.008	0.15	0.95	-0.05	0.89	delighters	4.74
3. Number of permission	0.075	-0.037	0.11	0.67	-0.33	0.34	satisfiers	4.00
4. Quota on tourists	-0.096	-0.211	0.31	-0.31	-0.69	-0.37	dissatisfiers	3.61
7. Number of shopping stops	-0.022	-0.035	0.06	-0.39	-0.61	-0.23	dissatisfiers	3.07
8. Inspection scale	-0.073	0.139	0.21	-0.34	0.66	-0.31	dissatisfiers	4.27
9. Tax inspection scale	-0.013	-0.037	0.05	-0.26	-0.74	-0.48	dissatisfiers	4.54
10. Punishment standard	0.205	0.049	0.25	0.81	0.19	0.61	satisfiers	4.65
13. Quality of products	0.357	-0.381	0.74	0.48	-0.52	-0.03	hybrids	3.82

RIOCS > 0.45, 0.15 < RIOCS < 0.45, and RIOCS < 0.15. The areas for Travel quality are RIOCS > 0.49, −0.03 < RIOCS < 0.49, and RIOCS < −0.03. The longitudinal coordinate is for the value of IA. Based on the suggestion of Mikulić and Prebezac [38], IA can be classified into five categories: "delighters" (IA > 0.8), "satisfiers" (0.8 ≥ IA > 0.2), "hybrids" (0.2 ≥ IA > −0.2), "dissatisfiers" (−0.2 ≥ IA ≥ −0.8), and "frustraters" (−0.2 > IA) (Figure 3).

Even though all five Revenue Related attributes are in the moderate impact interval, the dispersion is obvious. "5. Prohibition against zero-tour" (IA=0.91) and "12. Negotiation of both sides" (IA=0.43) are delighter and satisfier respectively. "1. Reception standard" (IA=0.10) and "6. Assistance on receivables" (IA = 0.01) are hybrids. Only "11. Regulations on grouping agencies" (IA = −0.80) is classified as a frustrater.

Among the attributes of Travel quality, "13. Quality of products" is a hybrid (IA = −0.03) in the high impact interval. The other seven attributes are in the moderate interval. "2. Report obligation" (IA=0.89) is a delighter. "10. Punishment standard" (IA=0.61) and "3. Number of permission" (IA=0.34) are satisfiers. Finally, four attributes of "4. Quota on tourists" (IA = −0.37), "7. Number of shopping stops" (IA = −0.23), "8. Inspection scale" (IA = −0.31), and "9. Tax inspection scale" (IA = −0.48) are dissatisfiers.
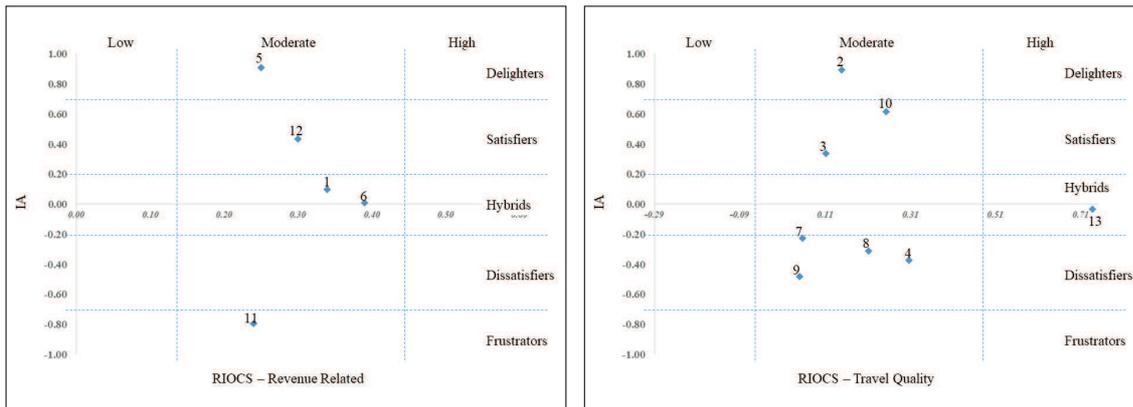
Figure 3: Impact-asymmetry Analysis (IAA).

3.4. The validity of Importance

Designed by the authorities, the measures enforced on the travel agencies for the purpose of sustainable market. The travel agencies are supposed to be the beneficiaries upon a regulated market. With the enforcement of the administrative dispositions, the travel agencies are obligated to fulfill certain requirements and increase their operational cost. While considering the Importance of measure as its contribution to a sustainable market, the travel agencies will attach importance to those measures, which are profitable and less constraint to their businesses. In the questionnaire, to Support a measure implies the travel agency will be likely to accept, obey, and promote the measure. The subjective or uncertain concept of Importance will be improved by the willing of Support. Both Importance and Support depend on the nature and design of the measure, but Performance is determined by the implementing result.

We can comprehend the degree of Importance and Performance via IPA. While discussing the validity of Importance, a supportive attitude from the travel agency can demonstrate the classification and confirm the response of Importance. The validity is an index to detect consistency between the conceptual definition and the operational definition. Among the types of validity measurements, the criterion of validity is approached by introducing convincing indexes or standards to precisely explain a concept (e.g. concurrent validity). The Cronbach's α verifies internal consistency, stability, and reliability of Importance, Performance, and Support. In an attempt to prevent subjective perspectives on Importance, this study introduces the concept of Support to attest to the validity of Importance. The premise is that the travel agencies will support the policies they believe are important. The two assumptions we propose are first, without external interference, the degree of support from travel agencies on administrative policies is very much like the degree of Importance they assign. In other words, these two have are highly correlated. 2. The degree of external interference is the deviation of Support from Importance.

According to the first assumption, the correlation of Support and Importance from the travel agencies will be high, because the travel agencies value Importance based on the benefits to them or to the market. The more beneficial approach gains more support. The direct valuation of Importance can be verified by their Support. For examination purposes, the questions should be designed carefully to avoid an answer of support prejudiced by Importance. The second assumption illustrates the measurement of external interference. Either the environment of the travel agencies themselves or the socioeconomic environment can make their supportive attitude deviate from Importance.

In this study, Support is proposed as an index to examine the validity of Importance. While the degree of Support is very much like the degree of Importance, a measure will be one of the conditions: important with much support; important with less support; not important with much support; not important with less support. Each of the condition suggests an attitude from the travel agencies toward the design of a measure. In order to classify the condition, we introduce the concept of IPA to form a data-centered Importance-Support dimension. The dimension integrates a 45 degree line to observe the location of scores. The approach aims to illustrate the relative position of the two constructs rather than to compare their differences. In Figure 4, we evaluate the attitudes that the travel agencies have toward the administrative policy. The travel agencies will fight for the items that scatter both in the important areas (dimensions I and IV) and the region of Support > Importance. It is worthwhile for the agencies and the industry to support the items that are highly beneficial to them. For those items in the important area with less Support, the travel agencies will assess the implications for the market and choose to cooperate even if there are external interferences that might reduce their support.

The items scattered in the unimportant areas (dimensions II and III) have less priority. The passive attitudes of travel agencies are accompanied by criticism and complaints. In the region of Support > Importance, the agencies comply unhappily, and the authority will expect an act-according-to-circumstances response rather than a self-regulating response. The most difficult situation is in the unimportant and not supportive area. The travel agencies will protest the unreasonable items, or lobby the legislature to prevent the process from being implemented. In light of the backlash, the authority will deliberate every detail and process, and negotiate sincerely and fairly to strive for the understanding of the industry, and consider whether the policies are necessary (Figure 4).

The scores of Importance and Support are close and the correlation is 0.785. The result demonstrates that the travel agency would likely support the policies they view with importance. They also indicate that the policies they support are important. In Figure 4, the Revenue Related attributes of "1. Reception standard," "5. Prohibition against zero-tour," and "6. Assistance on receivables" are in the "Cooperate" zone, where Importance is higher than average but lower than Support. Two Revenue Related attributes, "11. Regulations on grouping agencies" and "12. Negotiation of both sides," are in the zone where Importance is both higher than average and greater than Support. It means the agencies will encourage the implementation of these policies. Among the

attributes of Travel quality, "4. Quota on tourists," "9. Tax inspection scale," and "10. Punishment standard," are in the zone of "Protest." The attributes where Importance is below both the average and Support are mostly not welcomed. Other attributes, "2. Report obligation," "3. Number of permits," "7. Number of shopping stops," "8. Inspection scale," and "13. Quality of products," are in the "act-according-to-circumstances" zone, where Importance is lower than average but Support is still higher than Importance. The travel agencies will meet these requirements for some reason even though they acknowledge these attributes are not important.
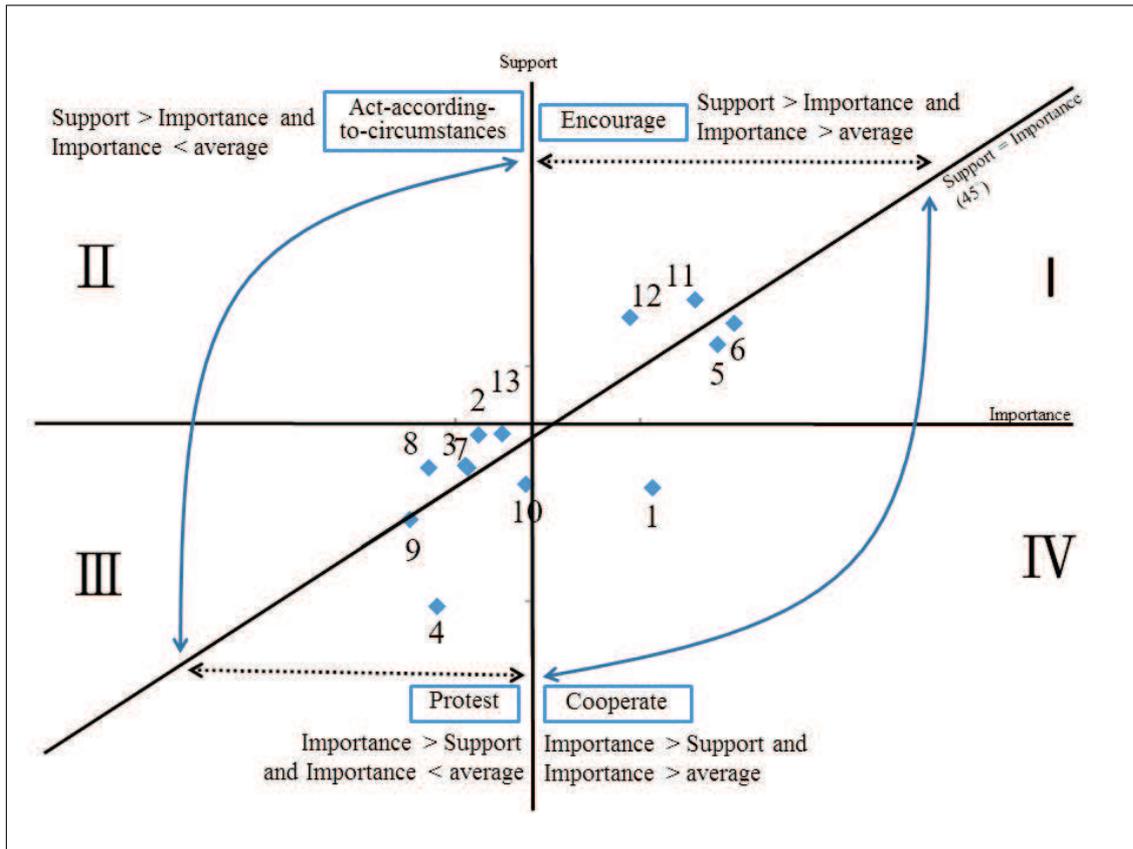

Figure 4: Responses to the Importance and Support.

3.5. The Importance and RIOCS

IA indices indicate the categories of satisfaction along with the degree of impact of RIOCS. The categories of satisfaction could be included with Importance to understand whether the important attributes have been reflected. This study constructs a plot that consists of Importance and IA to illustrate the comparison. In Figure 5, only "11. Regulations on grouping agencies" in the relatively important of five Revenue Related

attributes is a frustrater. It addresses the most disappointing among the relatively important attributes. Other attributes of "5. Prohibition against zero-tour," "6. Assistance on receivables," and "1. Reception standard" are hybrids or above, which means the agencies are not disappointed with these attributes. Within the relatively lower important attributes of Travel quality, the "10. Punishment standard," "2. Report obligation," "3. Number of permits," and "13. Quality of products" were previously important and categorized into hybrid or above. This indicates an acceptable level of satisfaction. However, "7. Number of shopping stops," "4. Quota on tourists," "8. Inspection scale," and "9. Tax inspection scale" are the lowest attributes and are dissatisfiers. The results suggest an adjustment of resource allocation for these attributes since the agencies indicate that these policies are irrelevant and disappointing as well.
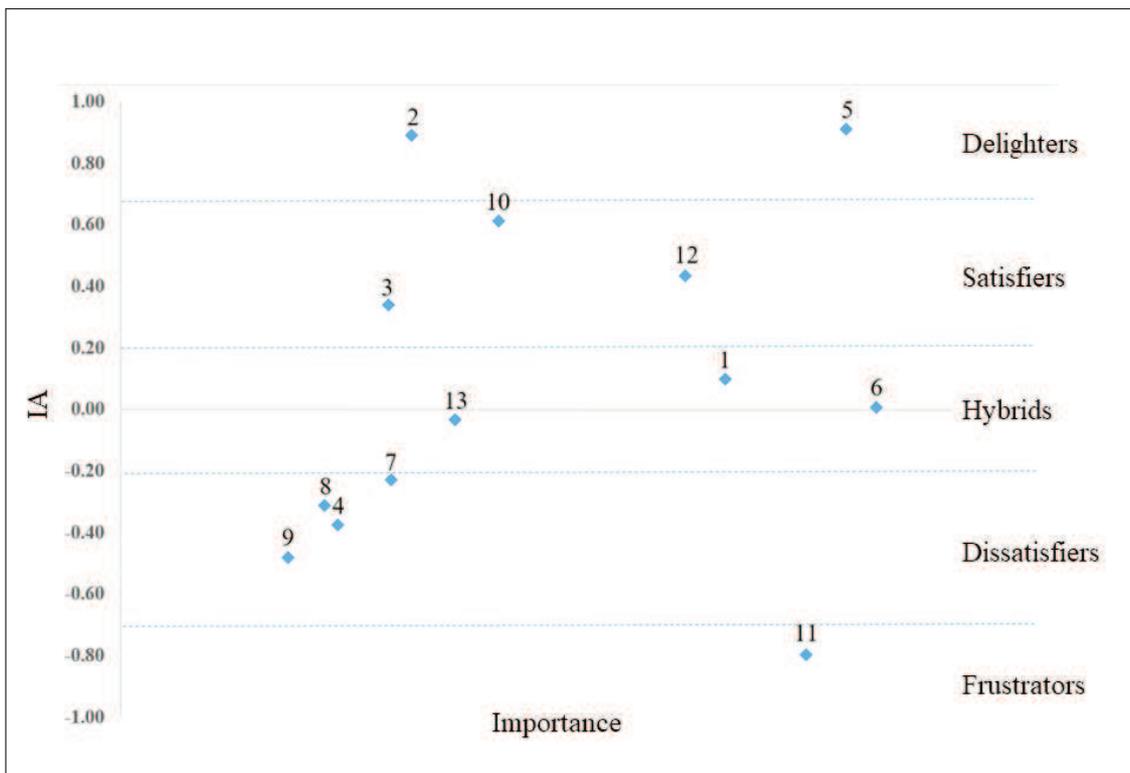

Figure 5: Importance and Impact-asymmetry (IA).

4. Discussions and conclusions

Open policy tourism benefits economic growth and contributes to globalization. Establishment of a comprehensive administration mechanism is a forward-looking approach to help prevent disorder and to guide the market towards a healthier and more sustainable operation. In examining the empirical case where Taiwan implemented an inbound

Chinese tourist groups policy, the effect of administration should be examined from the point of view of the tourism industry, as well as cooperation between the grouping side and the destination. From the Importance distribution of the administrative attributes, the valuations of Revenue Related attributes are higher than those of Travel quality. It implies that Revenue Related attributes should be assigned more attention because they are closely linked to the operation of the agencies. By applying the IPA, IRPA, and IAA, the results demonstrate the satisfaction expressed by the travel agencies regarding the administration attributes. The range of Performance scores of Travel quality is wider, compared to Revenue related, and the opinions are very different. The range of Performance of Revenue Related is narrower, and opinions are less conflicting. The impacts of Revenue Related attributes are moderate, with one frustrater (Regulations on grouping agencies). The impact of Travel quality attributes are also moderate except Quality of products. The outcome also points out that Quota on tourists, Number of shopping stops, Inspection scale, and Tax inspection scale are dissatisfiers. It implies that travel agencies anticipate aggressive counter measures for disciplining the grouping side. The travel agencies also express complaints about constraints of reception conditions.

This study addresses Support as a good reference for the validity of Importance. The argument is that the travel agencies would value those policies or measurements that benefit the individual agency, the industry, or the whole tourism environment as important, and therefore support the policies or measurements. We construct a plan of Importance and Support to illustrate the areas of Encourage, Act-according-to-circumstances, Protest, and Cooperate. The attitudes of Support and Importance from the travel agencies determine their response. In the case of Taiwan, the agencies will cooperate on Revenue Related attributes such as Reception standard, Prohibition against zero-tour, Assistance on receivables; and they will encourage Regulations on grouping agencies and Negotiation from both sides. However, the agencies will protest Travel quality attributes of Quota on tourists, Tax inspection scale, and Punishment standard; they will act according to circumstances on Report obligation, Number of permits, Number of shopping stops, Inspection scale, and Quality of products.

Among the Revenue Related attributes on the plan of Importance and IA, the Regulations on grouping agencies is relatively important and the most disappointing. The Quota on tourists, Number of shopping stops, Inspection scale and Tax inspection scale in Travel quality are less important and dissatisfied attributes. The attributes that the travel agencies anticipate should be reviewed by the administration to ensure administrative efficiency and purpose. The purpose of public administration cannot be only for the benefit of the industry. It is necessary to maintain market order when resistance against regulations is planned. Nevertheless, the intensity of the administration can be reduced as the market matures. With the minimum control, the agencies will complain less, strengthen their self-control, and increase their competitiveness. Another advantage is that the authority can make the most of its resources to reach its goal effectively. This allows the administration to focus on routine requirements to control misbehavior and maintain good order.

References

[1] Allen, D. R. and Rao, T. (2000). Analysis of Customer Satisfaction Data, Milwaukee, WI: American Society for Quality.

[2] Azzopardi, E. and Nash, R. (2013). *A critical evaluation of importance - performance analysis*, Tourism Management, Vol.35, 222-233.

[3] Back, K. J. (2012). *Impact-range performance analysis and asymmetry analysis for improving quality of Korean food attributes*, International Journal of Hospitality Management, Vol.31, No.2, 535-543.

[4] Bartikowski, B. and Llosa, S. (2004). *Customer satisfaction measurement: comparing four methods of attribute categorisations*, The Service Industries Journal, 24(4), 67-82.

[5] Busacca, B. and Padula, G. (2005). *Understanding the relationship between attribute performance and overall satisfaction: Theory, measurement and implications*, Marketing Intelligence & Planning, Vol.23, No.6, 543-561.

[6] Choi, H. S. C., and Sirakaya, E. (2005). *Measuring residents' attitude toward sustainable tourism: Development of sustainable tourism attitude scale*, Journal of Travel Research, Vol.43, No.4, 380-394.

[7] Deng, W. (2007). *Using a revised importance-performance analysis approach: the case of Taiwanese hot springs tourism*, Tourism Management, Vol.28, 1274-1284.

[8] Diedrich, A. and Garcia-Buades, E. (2008). *Local perceptions of tourism as indicators of destination decline*, Tourism Management, Vol.41, 623-632.

[9] Dredge, D. (2006). *Policy networks and the local organisation of tourism*, Tourism management, Vol.27, No.2, 269-280.

[10] Eising, R. (2004). *Multilevel governance and business interests in the European Union*, Governance, Vol.17, No.2, 211-245.

[11] Enright, M. J. and Newton, J. (2004). *Tourism destination competitiveness: a quantitative approach*, Tourism management, Vol.25, No.6, 777-788.

[12] Eskildsen, J. K. and Kristensen, K. (2006). *Enhancing importance-performance analysis*, International Journal of Productivity and Performance Management, Vol.55, No.1, 40-60.

[13] Evans, M. R. and Chon, K. (1989). *Formulating and evaluating tourism policy using importance-performance analysis*, Hospitality, Education, and Research Journal, Vol.13, 203-213.

[14] Fuchs, M. and Weiermair, K. (2003). *New perspectives of satisfaction research in tourism destinations*, Tourism Review, Vol.58, No.3, 6-14.

[15] Haley, A. J., Snaith, T. and Miller, G. (2005). *The social impacts of tourism: a case study of Bath, UK*, Annals of Tourism Research, Vol.32, No.3, 647-668.

[16] Hall, C. M. and Tribe, J. (2003). Tourism and Public Policy, Cengage Learning EMEA.

[17] Herzberg, F., Mausner, B. and Snyderman, B. B. (1959). The Motivation to Work, 2nd ed., John Wiley, New York.

[18] Herzberg, F. (2005). Motivation-hygiene theory, Organizational behavior one: Essential theories of motivation and leadership, eds JB Miner, ME Sharpe Inc, New York, 61-74.

[19] Hudson, S., Hudson, P. and Miller, G. A. (2004). *The measurement of service quality in the tour operating sector: A methodological comparison*, Journal of travel Research, Vol.42, No.3, 305-312.

[20] Hughes, O. E. (2012). Public management and administration, Palgrave Macmillan.

[21] Huh, C. and Vogt, C. A. (2008). *Changes in residents' attitudes toward tourism over time: a cohort analytical approach*, Journal of Travel Research, Vol.46, No.4, 446-455.

[22] Johns, N. (2001). *Importance-performance analysis using the profile accumulation technique*, The Service Industries Journal, Vol.21, No.3, 49-63.

[23] Joppe, M., Martin, D. W. and Waalen, J. (2001). *Toronto's image as a destination: a comparative importance-satisfaction analysis by origin of visitor*, Journal of Travel Research, Vol.39, No.1, 252-260.

[24] Lee, C. K., Kim, S. S., and Kang, S. (2003). *Perceptions of casino impacts — a Korean longitudinal study*, Tourism Management, Vol.24, No.1, 45-55.

[25] Lee, J. S. and Min, C. K. (2013). *Prioritizing convention quality attributes from the perspective of three-factor theory: The case of academic association convention*, International Journal of Hospitality Management, Vol.35, 282-293.

[26] Levenburg, N. M. and Magal, S. R. (2005). *Applying importance-performance analysis to evaluate e-business strategies among small firms*, E-Service Journal, 29-48.

[27] Litvin, S. W. and Ling, S. (2001). *The destination attribute management model: an empirical application to Bintan, Indonesia*, Tourism Management, Vol.22, 481-492.

[28] Lowenstein, M. W. (1995). Customer retention: An integrated process for keeping your best customers, Milwaukee: ASQC Quality Press.

[29] Lyons, W. E., D. Lowery and R. H. DeHoog. (1992). The Politics of Dissatisfaction: Citizens, Services, and Urban Institutions, Armonk, NY: M.E. Sharpe.

[30] Martilla, J. A. and James, J. C. (1977). *Importance-performance analysis*, Journal of Marketing, Vol.41, No.1, 77-79.

[31] Matzler, K. and Sauerwein, E. (2002). *The factor structure of customer satisfaction: An empirical test of the importance grid and the penalty-reward-contrast analysis*, International Journal of Service Industry Management, Vol.13, No.4, 314-332.

[32] Matzler, K., Sauerwein, L., and Heischmidt, K. A. (2003). *Importance-performance analysis revisited: the role of the factor structure of customer satisfaction*, The Service Industries Journal, Vol.23, No.2, 112-129.

[33] Matzler, K., Bailom, F., Hinterhuber, H. H., Renzl, B. and Pichler, J. (2004). *The asymmetric relationship between attribute-level performance and overall customer satisfaction: a reconsideration of the importance-performance analysis*, Industrial Marketing Management, Vol.33, No.4, 271-277.

[34] McGehee, N., and Andereck, K. (2004). *Factors predicting rural residents' support of tourism*, Journal of Travel Research, Vol.43, 131-140.

[35] McKercher, B. (2008b). *The Roots of Stereotypes about Tourists*, Society, Vol.45, No.4, 345-347.

[36] Mikulić, J., Duzević, I., and Baković, T. (2015). *Exploring drivers of student satisfaction and dissatisfaction: an assessment of impact-asymmetry and impact-range*, Total Quality Management & Business Excellence, Vol.26, No.11-12, 1213-1225.

[37] Mikulić, J. and Prebezac, D. (2008). *Prioritizing improvement of service attributes using impact range-performance analysis and impact-asymmetry analysis*, Managing Service Quality: An International Journal, Vol.18, No.6, 559-576.

[38] Miller, T. I. and M. M. Kobayashi. (2000). Citizen Surveys: How to Do Them, How to Use Them, What They Mean (2nd edn), Washington, DC: International City/County Management Association.

[39] Myers, J. H. (1999). Measuring customer satisfaction: hot buttons and other measurement issues, American Marketing Association.

[40] Myers, J. H. and M. I. Alpert. (1968). *Determinant Buying Attitudes: Meaning and Measurement*, Journal of Marketing, Vol.32, 13-20.

[41] Neslin, S. A. (1981). *Linking product features to perceptions: Self-stated versus statistically revealed importance weights*, Journal of Marketing Research, 80-86.

[42] Oleary, S., and Deegan, J. (2005). *Ireland's image as a tourism destination in France: attribute importance and performance*, Journal of Travel Research, Vol.43, 247-256.

[43] Oh, H. (2001). *Revisiting importance-performance analysis*, Tourism Management, Vol.22, 617-627.

[44] Oliver, R. L. (1997). Satisfaction: A Behavioral Perspective on the Consumer, Boston, MA: Irwin McGraw-Hill.

[45] Padula, G. and Busacca, B. (2005). *The asymmetric impact of price-attribute performance on overall price evaluation*, International Journal of Service Industry Management, Vol.16, No.1, 28-54.

[46] Pike, S. and Ryan, A. (2004). *Destination positioning analysis through a comparison of cognitive, affective and cognitive perceptions*, Journal of Travel Research, Vol.42, No.4, 333-342.

[47] Sampson, S. E. and Showalter, M. J. (1999). *The performance-importance response function: observations and implications*, The Service Industries Journal, Vol.19, No.3, 1-25.

[48] Sharma, B., Dyer, P., Carter, J. and Gursoy, D. (2008). *Exploring residents' perceptions of the social impacts of tourism on the Sunshine Coast*, Australia, International Journal of Hospitality and Tourism Administration, Vol.9, No.3, 288-311.

[49] Smith, W. W. (2007). *Social desirability bias and exit survey responses: the case of a first nation's campground in Central Ontario, Canada*, Tourism Management, Vol.28, No.3, 917-919.

[50] Tarrant, A., and Smith, E. K. (2002). *The use of modified importance-performance framework to examine visitor satisfaction with attributes of outdoor recreation settings*, Managing Leisure, Vol.7, 69-82.

[51] Tontini, G., and Silveira, A. (2007). *Identification of satisfaction attributes using competitive analysis of the improvement gap*, International Journal of Operations & Production Management, Vol.27, No.5, 482-500.

[52] Tovar, C. and Lockwood, M. (2008). *Social impacts of tourism: an Australian regional case study*, International Journal of Tourism Research, Vol.10, 365-378.

[53] Van de Walle, S. and G. Bouckaert. (2003). *Public service performance and trust in government: The problem of causality*, International Journal of Public Administration, Vol.26, No.8/9, 891-913.

[54] Van Ryzin, G. G. and Immerwahr, S. (2007). *Research note: importance performance analysis of citizen satisfaction surveys*, Public Administration, Vol.85, No.1, 215-226.

[55] Vargas-Sánchez, A., de los Ángeles Plaza-Mejıa, M., and Porras-Bueno, N. (2009). *Understanding residents' attitudes toward the development of industrial tourism in a former mining*, Journal of Travel Research, Vol.47, No.3, 373-387.

[56] Wang, D. and Ap, J. (2013). *Factors affecting tourism policy implementation: A conceptual framework and a case study in China*, Tourism Management, Vol.36, 221-233.

[57] Whyte, B. (2008). *Visa-Free Travel Privileges: An Exploratory Geographical Analysis*, Tourism Geographies, Vol.10, No.2, 127-149.

[58] Williams, J. and Lawson, R. (2001). *Community issues and resident opinions of tourism*, Annals of Tourism Research, Vol.28, No.2, 269-290.

[59] Ye, B. H., Fu, H. and Law, R. (2016). *Use of impact-range performance and asymmetry analyses to improve OTA website quality*, Journal of Hospitality and Tourism Management, Vol.26, 9-17.

Department of Management Sciences, Tamkang University, 25137, Taiwan, ROC.

E-mail: rctsaur@yahoo.com.tw

Major area(s): Multicriteria decision making, fuzzy set theory, business forecasting and green supply chain management.

Department of Management Sciences, Tamkang University, 25137, Taiwan, ROC

E-mail: alicech200@yahoo.com.tw

Major area(s): Tourism industry management, Travel quality, Decision making and Human resource management.