Hospitality Review

March 2014

The Study of Clustering of Taiwanese Tourists' Motivations to Hong Kong

Diann Newman, Ed.D.
Florida International University, Miami, newmand@fiu.edu

Yung-Kun Sung*
Ming Chuan University, Taipei, Taiwan, yksung@mail.mcu.edu.tw

Hung-Sheng Lai
Fu Jen Catholic University, New Taipei, Taiwan, 083878@mail.fju.edu.tw

Wei-Ni Shyu
Director, Hong Kong Tourism Board, Taipei, Taiwan, tpewwo@hktb.com

Follow this and additional works at: http://digitalcommons.fiu.edu/hospitalityreview

The Study of Clustering of Taiwanese Tourists' Motivations to Hong Kong

Abstract

Abstract

Driven by the political and economic forces of cross-strait, Taiwan has become one of the major source markets for Hong Kong tourism industry since 1987. The major purposes of this study were to investigate the following factors (1) The influential factors of travel motivation, (2) The clusters of travel motivations, (3) The marketing segmentation of clusters of Taiwanese tourists to visit Hong Kong. Through ten travel agents, self-report surveys were distributed to collect data from 366 Taiwanese travelers.

Hence, four push factors and six pull factors were identified as travel motivations through the factor analysis. Combined with the cluster analysis; five new groups were founded. Finally, five clusters which process unique profiles (location difference, visiting frequency, travel satisfaction, and destination loyalty) were addressed. The suggestions of developing effective market strategies to attract Taiwanese tourists to Hong Kong were also provided.

Cover Page Footnote

Hong Kong Tourism Board, Taipei, Taiwan

The Study of Clustering of Taiwanese Tourists' Motivations to Hong Kong

Diann Newman, Ed.D.
Florida International University

Yung-Kun Sung
Ming Chuan University

Hung-Sheng Lai
Fu Jen Catholic University

Wei-Ne Shyu
Hong Kong Tourism Board

Abstract

Driven by the political and economic forces of cross-strait, Taiwan has become one of the major source markets for Hong Kong tourism industry since 1987. The major purposes of this study were to investigate the following factors (1) The influential factors of travel motivation, (2) The clusters of travel motivations, (3) The marketing segmentation of clusters of Taiwanese tourists to visit Hong Kong. Through ten travel agents, self-report surveys were distributed to collect data from 366 Taiwanese travelers.

Hence, four push factors and six pull factors were identified as travel motivations through the factor analysis. Combined with the cluster analysis; five new groups were founded. Finally, five clusters which process unique profiles (location difference, visiting frequency, travel satisfaction, and destination loyalty) were addressed. The suggestions of developing effective market strategies to attract Taiwanese tourists to Hong Kong were also provided.

Keywords

Tourists' Motivations; Cluster; Travel Satisfaction; Destination Loyalty

Cover Page Footnote

Hong Kong Tourism Board, Taipei, Taiwan

1.   **Introduction**

For the past decade, the increasing number of research has suggested that a better understanding of consumers' travel motivation helps a region's tourism development to not only identify potential customers but also to improve satisfaction and destination loyalty. In tourism, many studies have focused on travel motivation (Alebaki & Iakovidou, 2010; Boksberger & Laesser, 2009; Chon, 1982; Crompton, 1979; Dann, 1977, 1981; Iso-Ahola, 1982, 1989; Kim & Ritchie, 2012; Özel & Kozak, 2012; Sangpikul, 2008). Some of the studies focused on tourists' travel satisfaction (Bosque & Martin, 2008; Kozakz & Rimmington, 2000), or on understanding consumers' reactions in destination loyalty (Alegre & Juaneda, 2006; Backman & Crompton, 1991). In this study, researchers focused on "push" (the internal factor) and "pull" (the external factor) factors which describe the travelers' motivation influenced by their needs (Jang & Wu, 2006; Kim, Lee, & Klenosky, 2003, Sangpikul, 2008). A general review of the tourism literature identifies that push and pull motivation, travel satisfaction, and destination loyalty have been generally accepted and adopted (Battour, Battor, & Ismail, 2012; Chi & Qu, 2008; Crompton, 1979; Hanqin & Lam, 1999; Jang & Wu, 2006; Kim, 2008; Oom do Valle, Silva, Mendes, & Guerreiro, 2006; Petrick & Backman 2002; Yuan & McDonald, 1990; Yoon & Uysal, 2005).

The tourism industry is a major support of the economy of Hong Kong. Mainland China is the largest source for this market and Taiwan continues to be the second largest source market (Hong Kong Tourism Board, 2011). Therefore, the importance of maintaining Taiwan market's arrivals is a top priority for the Hong Kong government and travel agents. Therefore, it is crucial to understand the motivation of Taiwan travelers by measuring the level their satisfaction extends to destination loyalty. That is to say, this study not only focuses on travelers' motivation, but also emphasizes travel satisfaction and destination loyalty. Hence, the purposes of this study were to explore the dominant factors motivating Taiwanese to visit Hong Kong; to cluster the tourists based on their motivation; and to identify the market segments, including travel satisfaction and destination loyalty, of clusters of Taiwanese tourists to Hong Kong.

According to the purposes of this study, three research questions were presented. What are the dominant factors motivating Taiwanese to visit Hong Kong? What are the clusters of travel motivations? What are the market segments of clusters of Taiwanese tourists to Hong Kong?

This paper therefore targets to provide a better understanding of the factors motivating tourists from Taiwan to Hong Kong and their levels of satisfaction and loyalty. More specifically, the push and pull motivations of visiting Hong Kong from Taiwan tourists were determined. After that, push and pull motivations were used to cluster these tourists into different segments. Following that, various segments with regard to their location difference, visiting frequency, travel satisfaction, and destination loyalty were explored. Finally, conclusion, summary, discussion, and recommendations are made as to how Hong Kong, the selling destination, can continue to attract tourists from Taiwan.

2.   Literature Review

A tourist's travel decision is usually a complex process including many factors, such as visitors' perceptions, motivations, destination image, past experience, and intentions (Beerli & Martin, 2004). Understanding why people travel, i.e. travel motivation, is a fundamental question that has been studied extensively. Researching the motivation that influences tourists' destination selection and travel patterns could enable one to explain and to predict their future travel behaviors, thus, help in developing and implementing diverse marketing strategies to attract them (McGuiggan, Emerson, & Glaser, 1985; Kau & Lim, 2005). Eventually, the main goal is to keep tourists' happy, i.e. satisfaction, and to keep them continually returning to visit the destination (Petrick, 2004).

2.1   Push and Pull Motivations

For decades, tourism scholars and researchers have grouped tourist motivations as push or pull factors. The concept is that travelers are both "pushed" to travel by personal need and wants, and "pulled" to travel by appealing attributes of travel destination (Cook, Yale, & Marqua, 2010, Uysal, Li, & Sirkaya-Turk, 2008, Walker & Walker, 2011). In other words, travel motivation is influenced by internal attributes - the "push" elements, and external attributes - the "pull" elements (Crompton, 1979; Dann, 1977, 1981; Goossens, 2000; Jang & Cai, 2002; Uysal & Jurowski, 1994, Yuan & McDonald, 1990).

Several studies have indicated that the push and pull factors provide a practical tactic for examining the travel motivations and tourist behavior. Hanqin and Lam (1999) studied mainland Chinese visitors' motivation to visit Hong Kong. The results showed that "knowledge", "prestige", "enhancement of human relationship", "relaxation" , and "novelty" were the push factors; while the "hi-tech image", "expenditure", "accessibility", "service attitude and quality", "sightseeing variety", and "culture links" were the pull factors. Kim, Lee, and Klenosky (2003) investigated travel motivations from six different National Parks in South Korea. "Family togetherness and study", "appreciating natural resources and health", "escaping from everyday life", and "adventure and building friendship" were four push factors. "Key tourist resources", "information and convenience of facilities", and "accessibility and transportation" were three pull factors. Yoon and Uysal (2005) also examined travel motivations in Northern Cyprus. Eight push factors (excitement, knowledge & education, relaxation, achievement, family togetherness, escape, safety & fun, and getting away from home & sightseeing) and nine pull factors (modern atmospheres & activities, wide space & activities, small size & reliable weather, natural scenery, different culture, cleanliness & shopping, night life & local cuisine, interesting town & village, and water activities) were found. Lastly, Jang, and Wu (2006) identified five push and three pull factors when conducting a study to examine Taiwanese seniors' travel motivations. Push factor included "ego-enhancement", "self-esteem", "knowledge-seeking", "relaxation", and "socialization". On the other hand, pull factors included "cleanliness & safety", "facilities, events, & cost," and "natural & historical sight".

Because this theory has been proven by the above researchers, this study used the push and pull theory to measure the Taiwanese tourists' travel motivation to Hong Kong in order to respond to the research question: What is the motivation that brings Taiwanese tourists to Hong Kong?

2.2   Cluster Analysis of Travel Motivations

In addition to the researchers attempting to understand the visiting motivation of tourists, many studies have demonstrated the possibility of segmentations of travelers. With the segmentation technique, planning authorities and practitioners, such as government and travel agencies, could allocate limited resources more effectively in marketing destinations and in attracting diverse groups of visitors. In fact, segmentation strategies are the "strategic weapons" in the travel and tourism industry (Frochot & Morrison, 2000). It is also the most commonly used technique to discover the benefits sought by visitors (Kau & Lim, 2005).

Past research had grouped the travelers into different segments. Firstly, Cha, McCleary, and Uysal (1995) described Japanese travelers' motivation to go abroad. Through cluster analysis, sport, novelty, and family/relaxation were found.. Secondly, Chinese visitors' perceptions to New Zealand were identified and four clusters of visitors were determined by Ryan and Mo (2001). Thirdly, Jang, Morrison, and O'Leary (2002) studied the segmentation of Japanese travelers to the USA and Canada. They decided that their motivation could be clustered into three different groups. Fourthly, five clusters were found for British tourists visiting Turkey (Andreu, Kozak, Avci, & Cifter, 2005). Finally, Kau, and Lim (2005) clustered Chinese tourists based on their motivation to visit Singapore into four main segments. Therefore, the study used the cluster technique to cluster the Taiwanese tourists based on their travel motivation in order to respond to the research question: What are the clusters of Taiwanese tourists?

2.3   Travel Satisfaction and Destination Loyalty

Other topics of the study related to travel motivation are the further analysis of their levels of satisfaction and loyalty. Tourist satisfaction had a significant influence on behavioral intentions (Bosque & Martin, 2008). More specifically, it was a key indicator to attracting repeat travelers. With destination loyalty, both were related to the tourist products, destinations, and motivations (Alegre & Juaneda, 2006). More importantly, loyalty was one of the indicators used to measure the success of market strategies to build the competitiveness (Dimanche & Havitz, 1994).

Bigne, Sanchez, and Sanchez (2001) confirmed that satisfaction determined the willingness to recommend the destination; however, the influence of satisfaction on the intention to return cannot be confirmed. Oom do Valle, Silva, Mendes, and Guerreiro (2006) concluded that tourist satisfaction was the key contributing factor to destination loyalty intention. Jang and Feng's (2007) study showed that satisfaction was a direct indication of short-term revisit intention. Chi and Qu (2008) examined the relationship between tourist satisfaction and destination loyalty. They found that satisfaction had a direct and positive impact on destination loyalty. Previous studies also identified that clusters of tourists were characterized in relation to satisfaction levels and loyalty intentions (Oom do Valle et al., 2006). Overall, both satisfaction and loyalty should be examined together for the analysis of future tourist marketing strategies. Hence, both of them were analyzed for the clusters of tourists' travel motivation.

After a review of the literature, it is suggested that Taiwanese tourists to Hong Kong can be similarly segmented into different clusters according to their push and pull motivations. Additionally, it is proposed that different clusters should include the distinct socio-demographic profile; location difference and trip-related characteristic; and visiting frequency. Similarly, it is also proposed that various clusters would differ with respect to their travel satisfaction and destination loyalty. Thus, the market segments, (i.e., location difference, visiting frequency, travel satisfaction, and destination loyalty) of clusters of Taiwanese tourists to Hong Kong were conducted in order to respond to the research question: What are the market segments of Taiwanese tourists?

The core issues of this study are motivations and their clusters with market segments. The motivation constructs may be unique to tourists from different countries (Hanqin & Lam, 1999). Thus, it will be very interesting to research Taiwanese tourists' motivations toward Hong Kong. Moreover, past studies discussed above do not include whether there are relationships among push and pull motivations, location difference, visiting frequency, travel satisfaction, and destination loyalty. This study addresses these core issues based on the collecting data. The empirical results provide a foundation in the developing and planning of future marketing strategies for different clusters of tourists.

3.   Method of Study

A self-report survey was distributed to collect primary data from Taiwanese travelers through ten Taiwan outbound travel agents. Among them, seven travel agents are located in t northern Taiwan, one travel agent is located in central Taiwan, and two travel agents are located in southern Taiwan. These travel agents were selected because the Hong Kong Tourism Board (HKTB) has officially worked with them to recruit Taiwanese travellers to Hong Kong for years. (The HKTB is a government-supported body tasked to market and promote Hong Kong as a travel destination worldwide and to enhance visitors' experience once they arrive.) In particular, the surveys were disseminated to consumers who had visited Hong Kong within one year because they still have fresh memories to recall the visiting experience to Hong Kong. A total of 401 questionnaires were collected, in which 366 usable questionnaires provided valid data and were used for data analysis.

The questionnaire was designed to include 24 push-factor items and 30 pull-factor items (Jang & Wu 2006; Hanqin & Lam, 1999; Kim, Lee, & Klenosky, 2003; Yooh & Uysal, 2005), five satisfaction items (Lee, Lee, & Wicks, 2004; Williams & Soutar, 2009) and six items for destination loyalty (Alegre & Juaneda, 2006; Backman & Crompton, 1991; Kozak, 2001; Petrick, & Backman, 2002). A 5-point Likert scale was used to measure all the above items. Additionally, personal information included the geographic segmentation – the location difference (North, Central, South, & Others) and behavioral

segmentation – the frequency travel (once, twice, three times, four times, and five times or more) to Hong Kong.

4.   **Results of Study**

Demographic background & trip characteristics of sampling

Using SPSS software, descriptive analysis of the sample showed that most of the respondents were female (64.5%), single (52.2%), in the age groups of 31-40 (36.6%), in the location of northern Taiwan (60.7%), in the occupation of the service worker (45.1%), at least a university degree (48.4%), and a yearly household income of less than 600,000 Taiwan dollars (52.2%). Table 1 shows the demographic information of tourists. Additionally, most responses have travelled to H.K. five times or more (26%), travel aboard once a year (32%), and spend HKD 4,001 or more (29.5).

Table 1: Description of survey respondents

Hybrid Segmentations	Percent (%)	Hybrid Segmentations	Percent (%)
Gender		*Household income (NT$)*	
Male	35.5	Less than 600,000	52.2
Female	64.5	600,001-700,000	14.2
Marital		700,001-800,000	45.0
Single	52.2	800,001-1,000,000	11.2
Married	47.8	Above 1,000,000	10.1
Age		*Frequency travel to Hong Kong*	
Less than 20	2.7	Once	25.4
21-30	26.2	Twice	19.7
31-40	36.6	Three times	21.0
41-50	25.4	Four times	7.9
51-60+	9.0	Five or more	26.0
Location		*Average travel abroad*	
North	60.7	Once	32.0
Central	14.8	Twice	27.9
South	23.0	Three times	16.9
Others	1.6	Four times	7.7
Occupation		Five or more	15.6
Student	5.5	*Spending*	
Civil servant	9.3	Less than HKD1,000	7.4
Businessman	23.8	1,001-2,000	21.8
Self-employed	11.2	2,001-3,000	18.6
House worker/ Retired	5.2	3,001-4,000	22.7
Service worker	45.1	4,000 or more	29.5
Educational level			
Senior high school & under	15.0		
Junior/Community College	20.5		
Senior College/University	48.4		
Graduated school	16.1		

Note: 1 US Dollar =7.75 HK Dollar = 30.0 NT Dollar

Factor Analysis of the push and pull factor scales

For the push part of motivation, at first, the factor analysis included all 24 push factor items but found that questions 11, 12, 16, 19, 20 and 21 were organized in one group but were irrelevant within this factor group (question 11 - sharing travel experience with family or friends , and 12 - visiting friends or relatives, were deleted because they were related to question 5 - impressing my friends or family and question 13 - being with family or friends; and question 19 - getting away from the demands of home. Question 20 - finding thrills or excitement and 21 - being daring and adventuresome were also

deleted because they were identified as "Novelty" but similar to question 22 - seeking fun and enjoyment,

23 - gaining the exciting experience and 24 - doing something new and fresh), therefore, these questions

were deleted. For other 18 push factor items were labeled to four factors: "Prestige and human

relationship enhancement", "Knowledge", "Novelty", "Relaxation". With eight values greater than 1.0

(Table2, these factors explained 63.47% of the variance. The reliability alphas to check internal

consistency of items within each factor ranged from 0.74 to 0.86. It meets Nunnally's (1978) criterion.

Table 2: Push factors of Taiwanese tourists travel motivation to Hong Kong

Push factors (reliability alpha)	Factor loading	Eigen-value	% of Variance	Mean
Factor 1: Prestige and human relationship enhancement (.84)		6.50	36.12%	3.50
Being with my family or friends	.76			
Facilitating family and kinship ties	.75			
Visiting a destination that would impress my friends or family	.71			
Going to place my friends want to go	.66			
Visiting a destination which most people value and/ or appreciate	.53			
Fulfilling my dream of visiting a place	.46			
Mixing with the fellow travelers	.44			
Factor 2: Knowledge (.83)		2.00	11.14%	3.83
See something different	.82			
Increasing knowledge about a foreign destination	.81			
Experiencing a different lifestyle	.76			
To be able to share or talk about the trip after return home	.63			
Visiting cultural and historical attractions	.60			
Factor 3: Novelty (.86)		1.731	9.61%	3.80
Seeing fun and enjoyment	.82			
Doing something new and fresh	.80			
Gaining the exciting experience	.80			
Factor 4: Relaxation (.74)		1.185	6.58%	3.98
Releasing work pressures	.77			
Resting/ Relaxation physically	.74			
Escaping from daily routine	.69			
KMO (.870)				
Total variance explained			63.47%	

Push motivations are evaluated using the scale of 1: strongly disagree; 2.disagree; 3: neutral; 4: agree; 5: strongly agree.

Factor analysis for the 30 pull items were labeled except question 38 (cruise facilities) and 49 (my family lives in Hong Kong). These two questions were irrelevant to their statistical dimensions and were deleted. Additionally, the reliability was higher after deleting question 38 and 49. Six factors were grouped as shown in Table 3. The factors account for 62.95 percent of the variance and were named as: "Sightseeing", "Expenditure", "Accessibilities", "Service attitude and quality", "Facilities and events", and "Hi-tech image" with eight values greater than 1.0. Factor loadings of all the items were above 0.51. The reliability alpha for the six dimensions were greater than 0.6, meeting Nunnally's (1978) criterion which is specified in Table 3.

Table 3: Pull factors of Taiwanese tourists travel motivation to Hong Kong

Pull factors (reliability alpha)	Factor loading	Eigen-value	% of Variance	Mean
Factor 1: Sightseeing (.84)		7.98	29.57%	3.25
Culture attractions	.83			
Historical and Heritage sights	.83			
Wildlife and sports	.69			
Facilities for physical activities	.61			
Beautiful and outstanding scenery	.59			
Visiting famous place and attractions	.50			
Factor 2: Expenditure (.92)		2.85	10.55%	3.65
Cost of food and beverage	.85			
Cost of transportation	.84			
Cost of tourist goods and service	.80			
Cost of attractions	.77			
Cost of accommodation	.51			
Factor 3: Accessibilities (.84)		1.964	7.27%	4.19
Geographic proximity	.84			
Easy of travel arrangement	.82			
Convenience of transport	.79			
Visa relaxation policy	.65			
Factor 4: Service attitude and quality (.75)		1.58	5.88%	3.70
Positive attitude of Hong Kong residents and	.71			
Quality of tour service	.71			
Quality of accommodation facilities	.70			
Quality of local transportation systems	.51			
Common language/word(e.g. Traditional Chinese)	.57			
Factor 5: Facilities and events (.74)		1.42	5.29%	3.95
Interesting night-life	.79			
Shopping paradise	.65			

Pull factors (reliability alpha)	Factor loading	Eigen-value	% of Variance	Mean
Attending special festival events	.60			
Testing of variety of food and beverage	.58			
Factor 6: Hi-Tech image (.72)		1.18	4.37%	3.82
City of modern technology	.82			
International cosmopolitan atmosphere	.82			
Uniqueness of local people's lifestyle	.59			
KMO (.866)				
Total variance explained			62.95%	

Pull motivations are evaluated using the scale of 1: strongly disagree; 2.disagree; 3: neutral; 4: agree; 5: strongly agree.

Factor analysis of the travel satisfaction and destination loyalty

Factor analysis for 5 satisfaction items and 6 loyalty items were labeled as two factors as shown in Table 4. The factors accounted for 72.17 percent of the variance in travel satisfaction, and 49.65 percent of the variance in destination loyalty. Factor loadings of all the items were above 0.50. The reliability alpha for the two dimensions were greater than 0.7 (Satisfaction's Cronbach's Alpha is 0.89 while destination loyalty's Cronbach's Alpha is 0.7), meeting Nunnally's (1978) criterion which is specified in table 4. And, the KMO value was 0.862 in "Satisfaction" and 0.866 in "Destination loyalty" which measure a sampling adequacy.

Table 4: Satisfaction and Loyalty Factors of Taiwanese tourists to Hong Kong

Factors (reliability alpha)	Factor loading	Eigen-value	% of Variance	Mean
Factor: Satisfaction (.89)		3.69	72.17%	3.57
Was exactly what I need	.82			
I was satisfied with decision	.89			
It was a wise choice and worth to visit	.89			
It was a good experience	.87			
Comparing with other place, I like Hong Kong better than other destination	.75			
KMO (.862)				
Total variance explained			72.17%	
Factor: Loyalty (.70)		2.97	49.65%	3.70
Recommendations to friends/relatives	.69			
Repeat visiting accommodation	.50			
Repeat visiting attractions	.77			
Repeat visiting attending transportation	.78			
Repeat visiting shopping	.76			
Repeat food and beverage	.67			
KMO (.866)				
Total variance explained			49.65%	

Both satisfaction and loyalty are evaluated using the scale of 1: strongly disagree; 2.disagree; 3: neutral; 4: agree; 5: strongly agree.

Cluster analysis of Taiwanese tourists based on their travel motivation

After the factor analysis, it was crucial to understand what types of the tourists can be clustered as meaningful segmentations and what differentiations can be determined as the key target segments. A cluster analysis, based on the non-hierarchical clustering procedure, was conducted to identify the groups via K-means clustering procedure to categorize the potential segmentations. The variables used to segment market were the four "push" and six "pull" motivations. The cluster solutions/groups ranging from three to six were examined in order to discover suitable clusters. It was concluded that the five-

cluster solution/group would be the most appropriate because it showed the highest degree of distinction among the clusters. The five-cluster were labeled as "Knowledge/Expenditure seekers" (25.7% of the sample; cluster 1); "Sightseeing seekers" (17.4%; cluster 2); "Accessibilities/ Relax seekers" (17.1%; cluster 3); "Novelty seekers" (28.7%; cluster 4); and "Facilities/ Hi-Tech seekers" (11%; cluster 5) (please see Table 5).

The means of the 10 motivation factors for each cluster are also presented in Table 5. A series of analysis of variance tests revealed that there were significant differences in geographical and behavioral segments; the mean scores among the five clusters indicated that 10 motivation factors contribute to the differentiation of the tourist segments and thus can be labeled appropriately. The Scheffe tests also showed that the five clusters were significantly different.

Table 5: ANOVA of motivation factor mean scores by cluster

Factor	Knowledge/ Expenditure Seekers	Sightseeing seekers	Accessibility seekers	Novelty seekers	Facilities/ Hi-tech seekers	F ratio	Sig.	Post-Hoc
Knowledge	3.78	3.15	3.97	4.34	3.46	44.99	.000	abcdeg
Prestige	3.54	2.85	3.32	4.15	2.96	55.97	.000	abcdegkl
Novelty	3.61	2.80	4.05	4.35	3.93	50.23	.000	abcdejko
Relaxation	3.71	3.22	4.36	4.44	3.96	34.02	.000	abdejklo
Sightseeing	3.29	2.54	3.04	3.80	2.87	57.53	.000	abcdegko
Expenditure	3.70	2.96	3.12	4.20	3.75	57.49	.000	abcdefop
Service attitude and quality	3.64	3.23	3.33	4.19	3.88	48.93	.000	abcdefop
Facilities and events	3.86	3.33	3.69	4.45	4.26	34.76	.000	abceknop
Hi-tech image	3.70	3.32	3.44	4.35	4.09	152.54	.000	abcefnop
Accessibility	3.84	3.81	4.11	4.57	4.72	113.97	.000	abcjknop
Size of cluster	25.7%	17.4%	17.1%	28.7%	11.0%			

a=1>2 b=1>3 c=1>4 d=1>5 e=2>3 f=2>4 g=2>5 h=3>4   i=3>5 j=4>2   k=4>3 l=4>5
    m=5   >1   n=5>2 o=5>3 p=5>4

*Post-hoc test reveals that the five clusters are significantly different in all 10 motivation factors.

Location difference and visiting frequency by clusters

After the cluster analysis, the crosstabs (chi-square tests) were used as the post-hoc comparisons. It was confirmed that the geographic segmentation, the location difference and behavioral segmentation, and the frequency travel to Hong Kong had significant differences when testing the cluster groups (Table 6). The result is shown in Table 6. Cluster 1 of Knowledge/ Expenditure seekers had the largest percentage of travelers living in the North (50.9) and has visited Hong Kong once (29.2%) or 5 times (22.6%). Cluster 2 of Sightseeing seekers also had a largest percentage of travelers living in the North (57.3%), but had almost the equal percentage of travelers living in the Central (20.8%) and South (21.8) and has visited Hong Kong once (28.1%) or 3 times (27.1%). Cluster 3 of Accessibilities/ Relax seekers had the largest percentage of travelers living in the North (60.0%), then the second largest percentage travelers living in the South (25.0%) and has visited Hong Kong 5 times (35.0%) or once (23.3%). Cluster 4 of Novelty seekers had the largest percentage of travelers living in the North (69.8%), then the second largest percentage travelers living in the South (20.6%) and has visited Hong Kong once (27.0%) or three times (25.4%). Cluster 5 of Facilities/ Hi-Tech seekers had the highest percentage of travelers living in the North (80.0%), and the most who have visited Hong Kong 5 times (46.3%).

Table 6: Location difference and visiting frequency profiles of clusters (%)

Variable	Knowledge/ Expenditure seekers	Sightseeing/ seekers	Accessibility seekers	Novelty seekers	Facilities/Hi-tech seekers	Total	X²	Sig. level
Location							28.92	.004
North	50.9	57.3	60.0	69.8	80.5	60.7		
Central	16.0	20.8	15.0	9.6	4.9	14.8		
South	27.4	21.9	25.0	20.6	14.6	23.0		
Others	0	0	0	0	0	1.6		
Frequency to HK							29.37	.022
Once	29.2	28.1	23.3	27.0	9.8	25.4		
Twice	17.0	21.9	20.0	20.6	19.5	19.7		
Three times	21.7	27.1	10.0	25.4	14.6	21.0		
Four times	9.4	2.1	11.7	9.5	9.8	7.9		
Five times	22.6	20.8	35.0	17.5	46.3	26.0		

Travel satisfaction and destination loyalty by clusters

A similar statistical analysis was applied to "travel satisfaction" and "destination loyalty" which is presented in Table7. In order to conduct the chi-square tests, a recode of data (from interval data to nominal data) was executed to present low (mean score <3), medium (=3) and high levels (>3) of satisfaction and loyalty. The chi-square tests showed that all 5 clusters presented significant differences as shown in Table 7.

For the travel satisfaction, the analysis concluded that cluster 1 of Knowledge / Expenditure seeker had the highest satisfaction ratings toward Hong Kong (64.2%). Cluster 2 of Sightseeing seekers presented a

middle rating of satisfaction toward Hong Kong (74%). Cluster 3 of Accessibility seekers (88.3%); cluster 4 of Novelty seekers (85.7%), and cluster 5 of Facilities / Hi-Tech image seekers (73.2%) also presented a middle level of travel satisfaction toward Hong Kong. It could mean that cluster 2 visited Hong Kong because of sightseeing and good services but not exactly they had high-level of travel satisfaction about Hong Kong. As for the Accessibility seekers (cluster 3/c3), Novelty seekers (c4) and Facilities Events/ Hi-Tech image seekers (c5), tourists may visit Hong Kong for the proximity (c3), curiosity, the appealing of Hong Kong's professional facilities (c4), or for the events experience and the Hi-Tech image (c5), but also not exactly they had high-level of travel satisfaction about Hong Kong.

For the destination loyalty, the cluster 1 of the Knowledge/Expenditure seekers indicated a high level rating loyalty in Hong Kong while all other clusters presented middle-level rating about Hong Kong. That means the marketers should focus on efforts to the group of Knowledge/ Expenditure seekers for future promotion target segment because this group would most likely return H.K.

Table 7: Travel satisfaction and destination loyalty profiles of clusters (%)

Variable	Knowledge/ Expenditure seekers	Sightseeing/ seekers	Accessibility seekers	Novelty seekers	Facilities/ Hi-tech seekers	Total	X2	Sig. level
Satisfaction Level							103.85	.000
Low	0	0	8.3	1.6	0	1.6		
Middle	35.8	74.0	88.3	85.7	73.2	67.2		
High	64.2	26.0	3.3	12.7	26.8	31.1		
Loyalty Level							70.93	.000
Low	0	0	1.7	3.2	0	0.8		
Middle	32.1	68.8	83.3	77.8	53.7	60.4		
High	67.9	31.3	15.0	19.0	46.3	38.8		

1.   Conclusions & Summary

According to the purposes of this study, three research questions are presented, followed with the results of the statistical analysis of the data.

A.   What are the dominant factors motivating Taiwanese to visit Hong Kong?

Through the factor analysis, four push factors and six pull factors are the motivations Taiwanese tourists have who like to visit Hong Kong. Push motivations include "prestige and human relationship enhancement", "knowledge", "novelty", and "Relation". Pull motivations include "sightseeing", "expenditure", "accessibilities", "service attitude and quality", "facilities and events", and "hi-tech image".

B.   What are the clusters of Taiwanese tourists' based on their travel motivations?

Through cluster analysis, Taiwanese tourists to Honk Kong could be clustered into five main segments. They are "knowledge/expenditure seekers", "sightseeing seekers", "accessibilities/relax seekers", "novelty seekers", and "facilities/hi-tech seekers"

C.   What are the market segments of clusters of Taiwanese tourists to Hong Kong?

Through chi-square, five main segments with the analysis of their location difference, visiting frequency, travel satisfaction, and destination loyalty are discussed. Each of the segments is found to have unique profiles.

A summary of their profiles is given in Table 8. Each of the segments represent unique motivations, and exhibit different demographic and trip-related characteristics. Most importantly, they also describe diverse levels of satisfaction and loyalty with the factors offered by Hong Kong as a travel destination for Taiwanese tourists. For instance, the Knowledge/Expenditure seekers mostly lived in the north part of Taiwan, visited H.K. once or five times, reported mostly high-level satisfaction and loyalty. They travelled to gain new knowledge, at the same time, requested reasonable prices. The Sightseeing seekers also mostly lived in the north part of Taiwan, but an almost equal amount lived in the central and south parts, visited H.K. once or twice, reported mostly middle-level of satisfaction and loyalty. They enjoyed visiting different places. The accessibilities/relax seekers mostly live in the north, visited H.K. five times, reported mostly middle-level of satisfaction and loyalty, and reported a lower-level of satisfaction and loyalty. They travelled for the conveniences and looked for a way to release pressure. The novelty seekers mostly lived in the north and seldom live in the central area, visited H.K. once, reported mostly middle-level satisfaction and loyalty, and reported few lower-level of satisfaction and loyalty. They embraced new experiences while traveling. Finally, the facilities/hi-tech seekers mostly lived in the north and seldom lived in the south and central, visited H.K. five-times, reported mostly middle-level and high-level of satisfaction and loyalty. They often went to H.K. due to the attractions of a modern city, shopping paradise, and special events & facilities.

Table 8: Summary of characteristics of Taiwanese tourist segments

Characteristics	Knowledge /expenditure	Sightseeing	Accessibilities /relax	Novelty	Facilities/ hi-tech
Location difference	More north; some south; few central	More north; some central & south	More north; some south; few central	Mostly north; some south; few central	Mostly north; few south & central
Visiting Frequency (Orders)	Once, five times, & three times	Once, twice, & five times	Five times, once, & twice	Once, three times, & twice	Five times, once, three times
Travel Satisfaction	Mostly high-level, & some middle-level	Mostly middle-level, & some high-level	Mostly middle-level,& few high-level & low level	Mostly middle level, few high-level, & seldom low-level	Mostly middle-level, & some high-level
Destination Loyalty	Mostly high-level, & some middle-level	Mostly middle-level, & some high-level	Mostly middle-level, few high-level, & seldom low level	Mostly middle-level, few high, & seldom low level	More middle & high levels

6. Discussion

The discussion addresses the implication of this study for the travel and tourism industry and the relevance to related theories, model and technique in travel and tourism literature. Additionally, the maximum likelihood (ML) method was used for estimating clusters of the Taiwanese travelers' motivation. This is essentially a process by which the number of variables is reduced by deterring which variables "cluster" together. Also, factors are the groupings of variables that measure some common constructs, i.e., push and pull factors or motivations.

The implementation of this study for the practical field is outlined below:

(1) This study identifies four push and six pull factors. Hong Kong government and/or Taiwan Travel Agencies could use and promote these factors to attract the Taiwanese tourists to Hong Kong. For example: releasing pressure from work, seeing something different, tasting food and wine, and convenience of transport are major reasons to travel to Hong Kong that Taiwanese tourists agree upon. They should avoid spending budgets to advertise and plan trips that focus on wildlife and sports, and being daring and adventuresome.

(2) The analysis of this survey confirms that five new clusters/groups were found. Hong Kong government and/or Taiwan Travel Agencies could target these populations for further promotions in the short term. In the long run, the new groups may need to be explored. For example: The TV commercials which play on Taiwan stations should show the diversity images of new expenditures, beautiful sceneries, exciting experiences, hi-tech, and easy accessibility to Hong Kong.

(3) Further analysis of these five new groups was conducted. Each of the groups is found to process unique profile in terms of tourists' location difference and visiting frequency. In the future, Hong Kong government and/or Taiwan Travel Agencies could effectively develop marketing strategies to attract Taiwanese tourists. Nevertheless, the marketers should consider offering an added value to extend the destination loyalty for frequent travelers. For example, for promoting Hong Kong as the high-tech image destination, they may spend more budget dollars on the tourists who live in the North and can provide rewards or discounts for tourists who visit Hong Kong more than 5 times. More precisely, the Hong Kong government must be able to allocate limited resources more effectively in attracting distinct and unique groups of tourists. Hence, it is the reasonable suggestion that Hong Kong government and Taiwan Travel Agencies should invest more energies, time, and budgets on the cluster 5 of Facilities / Hi-Tech image seekers. Particularity, this type of Taiwanese tourists, so far, has the least population to visit Hong Kong; it has the great potential to boost this market in the near future and to increase the numbers of Taiwanese tourists to visit Hong Kong in the long run.

To be more specific, based on the five clusters, the implication below are suggested to influence different target segments.

For cluster 1, the knowledge/expenditure group, using more in-depth communication by storytelling of Hong Kong's historic background to reach consumer's interest should be used to motivate their interest to revisit Hong Kong. In addition, there should be a package developed to encourage travel between international Hong Kong and domestic Taiwan to reinforce consumer interests and the realization that that Hong Kong can be an economic value and a weekend get-away destination.

For cluster 2, the sightseeing group, the marketers should put more effort on secondary cities. This group showed interest in visiting different places; therefore, a semi-package or full package can attract leisure travelers to visiting secondary cities.

For cluster 3, the accessibilities/relax seekers, this group showed a large proportion of frequent travel to Hong Kong and most of them based in northern Taiwan but indicated the middle-level of satisfaction and loyalty. Hence, ongoing events and activities could stimulate this target segment, i.e. relying on Hong Kong Tourism Board's annual nonstop mega events to create a sense of urgency for relaxation may allure the repeat-tourists to Hong Kong. Additionally, providing more flexible entry procedures and reducing the visa fees could be strategies to boost the tourists' arrivals.

For cluster 4, the novelty seekers, obviously this target segment seldom visit Hong Kong and recognized as the middle level of satisfaction and loyalty. In order to stimulate this target segment, marketers should develop new tour products or bundle with neighboring cities like the Pearl River Delta or Macau to attract novelty seekers to revisit Hong Kong.

For cluster 5, the facilities/ hi-tech seekers, is a potential target segment to be emphasized, because this group demonstrated frequent travel to Hong Kong and reported the middle level of satisfaction and loyalty. The marketers should highlight Hong Kong's hotels and hi-tech facilities to position Hong Kong as a cosmopolitan and trendy destination.

The relevance to related theories, model, and technique in travel and tourism literatures

(1) It is crucial to consider the motivational patterns or constructs to further comprehend the major driving forces of the Taiwanese tourists to Hong Kong rather than look at each individual motivation items. Using push and pull theories which were found in other empirical studies for different populations, ten factors are found in this pioneer study for Taiwanese population to travel to Hong Kong.

(2) Based on the reviewed past research, the most commonly used market segmentation technique in travel and tourism industry is to cluster the tourists. Thus, this research proposes Taiwanese tourists to

Hong Kong can be similarly segmented into five clusters ("knowledge/expenditure seekers", "sightseeing seekers", "accessibilities/relax seekers", "novelty seekers" and "facilities/hi-tech seekers") on the basis of their motivations. Compared with five past studies, three clusters were "sport seekers", "novelty seekers", and "family/relaxation seekers" for Japanese overseas travellers(Cha, McCleary, & Uysal, 1995); four clusters were "sightseeing seekers", "investment seekers", "package holidaymakers", and "low scorers" for Chinese visitors to New Zealand (Ryan & Mo, 2001); three clusters were "novelty/nature seekers", "escape/relaxation seekers", and "family/outdoor activities seekers" for Japanese pleasure travellers to the USA and Canada (Jang, Morrison, & O'Leary, 2002); five clusters were "fuzzy tourists", "recreational-type", "active", "escape seekers", and "relax-quiet tourists" for British tourists visiting Turkey (Andreu, Kozak, Avci, & Cifter, 2005); and four clusters were "family/relaxation seekers", "novelty seekers", "adventure/pleasure seekers", and "prestige/knowledge seekers" for Chinese tourists to Singapore (Kau & Lim, 2005).

(3) It is also found that each cluster process the distinct demographic profile: location differences, trip-related characteristics, and visiting frequency. Overall, the levels of travel satisfaction of each cluster with regard to various attributes offered by Hong Kong would be different. Similarly, they would also differ with respect to their likelihood of revisiting, repurchasing and the likelihood of recommending Hong Kong to others.

(4) Although the interconnection of push and pull motivation, travel satisfaction and destination loyalty have been documented and supported, there are still research challenges among these constructs. Yoon and Uysal (2005) suggested an application of these constructs to other settings (destinations) will help produce reliable indicators and further validate the constructs, as the result to produce a more and stable model. Additionally, in terms of technical aspect, this study not only used travel satisfaction and destination loyalty, but also added location difference and visiting frequency to profiles of clusters in order to provide more empirical evidences for Hong Kong government and travel agencies to develop marketing strategies. To conclude, this study was done by a specific population toward a specific

destination; the Taiwanese tourists toward Hong Kong; in the East Asia region. The replication of this study in other cases (different populations toward specific destinations) may provide opportunities to evaluate the extent and direction of push and pull motivations as tourists related degrees of travel satisfaction, destination loyalty, location difference and visiting frequency. Thus, this makes a better case for the uniqueness of this study to reevaluate the related theories, model, and technique.

7.   Recommendations & Limitations

Lastly, this study has only dealt with developments in tourists' behaviour related to motivation, satisfaction and loyalty. To get a picture of what will happen in the future of tourism, other influences and driving factors need to be considered as well, for example, destination attachment, travel value, travel barriers, tourist dissatisfaction, and destination image.

As for the limitations, the sampling of this study is narrow because it only deals with Taiwanese who attended Hong Kong tours from ten Taiwan outbound travel agents. As a result, the information obtained may only be valid for this population and they cannot be generalized to all outbound travelers who visiting Hong Kong from Taiwan. Hence, it is suggested that further research on Taiwanese travelers' motivation to visit Hong Kong should include other travel agencies which sell Hong Kong tours in order to come up with more representative outcomes.

References

Alebaki, M., & Iakovidou, O. (2010). Segmenting the Greek wine tourism market using a motivation approach. New Medit, 9(4), 31-40.

Alegre, J., & Juaneda, C.(2006). Destination loyalty: Consumers' economic behavior. Annuals of Tourism Research, 33(3), 684-706.

Andreu, L., Kozak, M., Avci, N., & Cifter, N. (2005). Market segmentation by motivations to travel: British tourists visiting Turkey. Journal of Travel & Tourism Marketing, 19(1), 1-14.

Backman, S. J., & Crompton, J. L.(1991). The usefulness of selected variables for predicting activity loyalty. Leisure Sciences, 13(3), 205-220.

Battour, M. M., Battor, M. M., & Ismail, M. (2012). The mediating role of tourist satisfaction: A study of Muslim tourists in Malaysia. Journal of Travel & Tourism Marketing, 29(3), 279-297.

Beerli, A., & Martin, J. D. (2004). Tourists' characteristics and the perceived image of tourist destinations: A quantitative analysis-a case study of Lanzarote, Spain. Tourism Management 25(5), 623-636

Bigne, J. E., Sanchez, M. I., & Sanchez, J. (2001). Tourism image, evaluation variables and after purchase behavior: Inter-relationship. Tourism Management 22(6), 607-616.

Boksberger, P. E., & Laesser, C. (2009). Segmentation of the senior travel market by the means of travel motivations. Journal of Vacation Marketing, 15(4), 311-322.

Bosque, I. R., & Martin, H. S. (2008). Tourist satisfaction: A cognitive-affective model. Tourism Management, 35(2), 551-573.

Cha, S., McCleary, K.W., & Uysal, M. (1995). Travel motivations of Japanese overseas travelers: A factor–cluster segmentation approach. Journal of Travel Research 34(1), 33-39.

Chi, G. Q., & Qu, H. L. (2008). Examining the structural relationships of destination image, tourist satisfaction and destination loyalty: An integrated approach. Tourism Management 29(4), 624-636.

Chon, K.S. (1989). Understanding recreational travelers' motivation, attitude and satisfaction. The Tourist Review, 44(1), 3-7.

Cook, R. A., Yale, L. J., & Marqua, J. J. (2010). Tourism: The business of travel (4th ed., pp. 34-35). Upper Saddle River, NJ: Pearson Education.

Crompton, J. L. (1979). Motivations of pleasure vacation. Annals of Tourism Research, 6(4), 408-424.

Dann, G. M. (1977). Anomie ego-enhancement and tourism. Annals of Tourism Research, 4(4), 184-194.

Dann, G. M. (1981). Tourism Motivations: An appraisal. Annals of Tourism Research, 8(2), 189-219.

Dimanche, F., & Havitz, M. E. (1994). Consumer behavior and tourism: Review and extension of four study areas. Journal of Travel and Tourism Marketing, 3(3), 37-57.

Frochot, I., & Morrison, A. M. (2000). Benefit segmentation: A review of its applications to travel and tourism research. Journal of Travel and Tourism Marketing, 9(4), 21-45.

Goossens, C. (2000). Tourism information and pleasure motivation. Annals of Tourism Research, 27(2), 301-321.

Hanqin, Z. Q., & Lam, T. (1999). An analysis of mainland Chinese visitors' motivations to visit Hong Kong. Tourism Management 20(5), 587-594.

Hong Kong Tourism Board (2011). A statistic review of tourism 2010. Hong Kong Tourist Board, Hong Kong.

Iso-Ahola, S. E. (1982). Toward a social psychology theory of tourism motivation: A rejoinder. Annals of Tourism Research, 12(2), 256-262.

Iso-Ahola, S. E. (1989), Motivation for leisure. In E. Jackson & T. Burton (Eds.), Understanding leisure and recreation: Mapping the past, charting the future, (pp. 247-279). State College, PA: Venture Publishing.

Jang, S., & Cai, L.(2002). Travel motivations and destination choice: A study of British outbound market. Journal of Travel & Tourism Marketing, 13(3), 111-133.

Jang, S. C., & Feng, R. M. (2007). Temporal destination revisit intention: The effects of novelty seeking and satisfaction. Tourism Management 28(2), 580-590.

Jang, S. C., Morrison, A. M., & O'Leary, J. T. (2002). Benefit segmentation of Japanese pleasure travelers to the USA and Canada: Selecting target markets based on the profitability and risk of individual market segments. Tourism Management 23(4), 367-378.

Jang, S. C., & Wu, C. M. (2006). Seniors' travel motivation and the influential factors: An examination of Taiwanese seniors. Tourism Management, 27(2), 306-316.

Kau, A. K., & Lim, P. S. (2005). Clustering of Chinese tourists to Singapore: An analysis of their motivations, values, and satisfaction. International Journal of Tourism Research, 7(4/5), 231-248.

Kim, J. H., & Ritchie, B. W. (2012). Motivation-Based typology: An empirical study of golf tourists. Journal of Hospitality and Tourism Research, 36(2), 251-280.

Kim, K. (2008). Analysis of structural equation model for the student pleasure travel market: Motivation, involvement, satisfaction, and destination loyalty. Journal of Travel and Tourism Marketing 24(4), 297-313

Kim, S. S., Lee, C. K., & Klenosky, D. B. (2003). The influence of push and pull factors at Korean national parks. Tourism Management 24(2), 169-180.

Kozak, M. (2001). Repeators' behavior at two distinct destinations. Annuals of Tourism Research, 28(3), 784-807.

Kozak, M., & Rimmington, M. (2000). Tourist satisfaction with Mallorca, Spain, as an off-season holiday destination. Journal of Travel Research, 38(1), 260-269.

Lee, C. K., Lee, Y. K., & Wicks, B. E. (2004). Segmentation of festival motivation by nationality and satisfaction. Tourism Management 25(1), 61-70.

McGuiggan, R., Emerson, P., & Glaser, S. (1995). Can personality be used to predict vacation choice: A preliminary study. Proceedings of the seventh bi-annual World Marketing Congress. Vol, VII-I, Academy of Marketing Science, Melbourne, Australia, July 6-11, 4: 67-74.

Nunnally, J. C. (1978). Psychometric theory (2nd ed.). New York: McGraw-Hill.

Oom do Valle, P., Silva, J. A., Mendes, J., & Guerreiro, M. (2006). Tourist satisfaction and destination loyalty intention: A structural and categorical analysis. Int. Journal of Business Science and Applied Management, 1(1), 25-44.

Özel, Ç.H., & Kozak, N. (2012). Motive based segmentation of the cultural tourism market: A study of Turkish domestic tourists. Journal of Quality Assurance in Hospitality and Tourism, 13(3), 165-186.

Petrick, J. (2004). The roles of quality, value, and satisfaction in predicting cruise passengers' behavioral intentions. Journal of Travel Research 42(4), 397-407.

Petrick, J. F., & Backman, S. J. (2002). An examination of golf travelers' satisfaction, perceived value, loyalty, and intentions to revisit. Tourism Analysis 6(3/4), 223-237

Ryan, C., & Mo, X.(2001). Chinese visitors to New Zealand — demographics and perceptions. Journal of Vacation Marketing 8(1), 13-27.

Sangpikul, A. (2008). A factor-cluster analysis of tourist motivations: A case of U.S. senior travelers. Tourism, 56(1), 23-40.

Uysal, M., & Jurowski, C. (1994). Testing the push and pull factors. Annals of Tourism Research, 21(4), 844-846.

Uysal, M., Li, X., & Sirkaya-Turk, E. (2008). Push-pull dynamics in travel decisions. In H. Oh & A. Pizam (Eds.), Handbook of hospitality and marketing management (pp.412-439). Oxford: Butterworth-Heinemann.

Walker, J. R., & Walker, J. T. (2010). Tourism: Concepts and practices (pp. 43-47). Upper Saddle River, NJ: Pearson Education.

Williams, P., & Soutar, G.N. (2009). Value, satisfaction and behavioral intentions in an adventure tourism context. Annals of Tourism Research, 36(3), 413-438.

Yoon, Y., & Uysal, M. (2005) An examination of the effects of motivation and satisfaction on destination loyalty: A structural model. Tourism Management 26(1), 45-56.

Yuan, S., & McDonald, C. (1990). Motivational determinants of international pleasure time. Journal of Travel Research, 24(1), 42-44.