

Dynamic Analysis of Internet Word-of-Mouth on Resort Hotels

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ABSTRACT

The purpose of this study was to explore and analyze the Internet word-of-mouth of customers regarding resort hotels, capturing articles from blogs hosted at Wretch, Yahoo, and Yam. A total of 146 web pages were accessed, and 56,883 posts were collected. The posts were dated between January 1, 2005 and December 31, 2010. Of the data, 10% was randomly selected as the research sample, for a total of 5,691 posts. After removing the unfit samples, there were 4,203 valid samples. Textual process and correspondence analysis methods were used for empirical study. Manual evaluation and correspondence analysis were used for data processing, which yielded the following conclusions: visitors to scenic areas, urban areas, hot springs, and amusement parks place the most emphasis on environment and scenery, the deliciousness of food and drink, hot spring and spa activities, and amusement park activities.

Keywords: Resort hotels, Satisfaction, Internet word-of-mouth, Dynamic analysis

INTRODUCTION

Research Background and Motives

The rise of the Internet has made web spaces increasingly important for users. According to the survey data from the Taiwan Network Information Center (TWNIC), nearly 16 million people use the Internet in Taiwan (TWNIC, 2010). People are carrying out more and more activities online. They communicate, interact, and connect with other users on the Internet, which has changed their communication channels and habits in daily life. Consumers also use the Internet to offer feedback regarding their purchase and product usage experiences, which become important bases for other consumers in making purchasing decisions.

The purpose of this study was to explore the level of customer satisfaction of resort hotels in Taiwan. The characteristics of Internet word-of-mouth were used to understand the relationship between customer satisfaction and the services provided by resort hotels. Next, this study attempted to understand how resort hotel consumer Internet word-of-mouth has differed over the years. The research results can be provided to resort hotel operators for improvement alternatives.

Research Purposes

In facing the business environment in the new economic era, corporations must actively and continuously elevate their service quality, especially with the rapid development of the tourism industry. Issues such as product ordering and manufacturing, service innovations, the provision of unified customer perspectives, the calculation of customer lifetime value, and the establishment of integrated diverse

channels can all promote great management profit. The collection of information relating to the satisfaction of customers is an important reference for hotels when conducting service improvements. The research purposes are as follows:

1. To explore the aspects of service quality satisfaction by resort hotel consumers.
2. To explore changes in the correlation between resort hotel consumer satisfaction and Internet word-of-mouth for different years.
3. To use the extent changes of the consumer satisfaction factors as a reference for resort hotel operators to improve upon their service quality.

LITERATURE REVIEW

Definition and Studies Relating to Resort Hotels

Currently in Taiwan there are diverse forms of hotel management, and the government has not definitively clarified the standards for the forms used. However, according to the classification standards of the Tourism Bureau of the Ministry of Transportation and Communication, hotels can be divided, based on their size, operations, and management methods, into four types: general tourist hotel, international tourist hotel, general hotel, and hostel. General hotel management types are divided into six types: resort hotel, hot spring hotel, business hotel, general hotel, farm ranch, and motel. Li (1998) defined resort hotels as those located in areas with beautiful scenery, near beaches, lakes, mountains, hot springs, islands or forests, with various architectural forms, and with seasonal differences.

Hou, Huang and Hsu (2008) used literature analysis and stratified analysis to explore decision-making factors for consumers in selecting international tourist hotels. The study found that the primary issue in consumer decision-making is price, and other factors are quality, facilities, food and drink, services, safety, convenience, and geographic location. Lin (2007) explored the service quality satisfaction and behavioral intent of international tourist hotel consumers, and found that hotel service quality would positively affect the post-consumption behavioral intentions of consumers.

This study defined resort hotels as those located in areas with beautiful scenery and that follow local characteristics. These hotels can provide customers with good service quality in all areas, including rooms, restaurants, entertainment and leisure facilities, and shuttle services. They also meet the consumers' tourism and recreational conditions, allowing tourists to meet their recreation goals.

Definition and Studies Relating to Customer Satisfaction

Customer satisfaction is the difference between the actual results and the expected results of customers. Parasuraman, Zeithaml & Berry (1985) defined customer satisfaction as the gap between customer expectations and real feelings regarding service quality. When the expectations are greater than the perceptions, customers will be dissatisfied with the service quality; when the expectations are the same as the perceptions, customers will feel satisfied with the service quality, and when the expectations are smaller than the perceptions, customers will be very satisfied with the service quality. Flint, Blocker & Boutin (2011) also pointed out that customer satisfaction is the treatment received by consumers from specific products and services as well as the resulting satisfaction.

Gustafsson (2009) suggested that corporations must provide more services to increase customer satisfaction, including contact with technical personnel, so that service can become more complex. They must provide service items that are connected to customer satisfaction; thus, the elevation of customer satisfaction and retention of customers has become the most important issue for corporations. Fonseca

(2009) indicated that in a highly competitive environment, customer satisfaction is a key element in helping corporations create and maintain corporate competitive advantages.

Yuksel A., Yuksel F. & Bilim. (2010) suggested that tourist attachment is an important item for measuring tourist satisfaction and loyalty. They used the structural equation model to show that the positive evaluations and perceptions of a travel site can increase customer loyalty, and it is an important factor for others when they evaluate a travel site as well.

This study explored customer satisfaction with the services they come into contact with, as well as the software and hardware services and their personal feelings and satisfaction after encountering the product or services, after making a reservation at a tourist hotel.

Studies Relating to Word-of-Mouth and Internet Word-of-Mouth

Word-of-mouth is the most significant informal communication channel for consumers. Early on, word-of-mouth referred to one-on-one and face-to-face communication between two or more consumers with business intent, based on brands, products, or service content. This sort of communication plays a significant role in customer consumption behavior (Ting and Chen, 2005). Internet word-of-mouth uses the virtual Internet information platform to engage in transmission and communication. Unlike traditional one-on-one word-of-mouth transmission, it is a one-to-many and many-to-one multidirectional interactive media, in which consumers use virtual spaces to post texts, multimedia (such as pictures, images, and sound files), and give feedback on product information.

Jiang, Shang & Liu (2010) explored the maximum satisfaction of customers through an Internet recommendation system, using the innovation correlation categorization model to conduct empirical study and understand the latent views of customers. Their study found that when corporations can provide online personalized service recommendation systems, it is beneficial for elevating customer satisfaction after use.

Lin and Tang (2010) pointed out that when the communicator is professional, there is a higher quality of word-of-mouth and higher ratio of positive word-of-mouth, which is considered more reliable and influential. Differences in word-of-mouth reliability will positively affect the product attitude and word-of-mouth communication intentions of customers.

This study primarily explored the Internet word-of-mouth of resort hotel consumer experiences after enjoying the services. Internet search engines were used to collect data relating to communication media from the sites on the world wide web, including personal blogs, Internet forums, and e-bulletins.

RESEARCH METHOD

Research Structure

This study used web page exploration as the primary research method, using information capture and information searches to collect data relating to Internet word-of-mouth from resort hotel customers in order to analyze the items about feelings and satisfaction after visiting the hotels. In order to collect data relating to Internet word-of-mouth, keywords relating to resort hotels were input into the Yahoo and Wretch websites, in order to collect articles written by tourists about their experiences after staying at resort hotels. The collected articles were categorized based on the web address, article title, article date, author name, article content, and feedback content, and data was saved into the database for follow-up article processing. The hotel service quality stars and building evaluation charts published by the Ministry of Transportation and Communication were used to summarize eight major aspects and derive the keywords for hotel evaluations.

After collecting the feature term data, a dynamic line chart model was used to create a correspondence table from the feature terms and phrases relating to resort hotels, in order to express the relationship among rows. The dynamic line chart method clearly showed the strength of correlation among the resort hotel customer satisfaction items, which could serve as a reference for the provision of services by resort hotel operators.

Research Procedures

1. Data collection

Blogs at the Wretch and Yahoo websites were examined to capture articles relating to resort hotels. After inputting the resort hotel keywords, the web page content of these articles were captured into the original database, for the setting of feature terms. The period covered six years, from 2005 to 2010. Finally, aspect analysis was conducted to obtain the results and characteristics of resort hotel customer satisfaction.

2. Setting the feature terms

Before setting the feature terms, the hotel service quality stars and building evaluation charts published by the Ministry of Transportation and Communication were used to summarize eight major aspects that are more commonly related to Internet word-of-mouth: tours, customer service, room reservation, quality of rooms, food and drink, facilities, environment, and transportation. The detailed aspects were then summarized based on the aspects, as shown in Table 1:

Table 1: Evaluation aspect items of resort hotels

Eight aspects	Detailed items
Tours	Packaged tours, promotions, discounts
Customer service	Greeting, luggage, professional, attitude
Room quality	Size, cleanliness, comfort, amenities
Room reservations	Speed, flow, procedures, online
Food and drink	Dishes, deliciousness, afternoon tea, snacks, buffet
Environment	Surroundings, scenery, comfort
Facilities	Gym, spa, banquets, hot springs, KTV, Internet access, swimming pools, amusement areas
Transportation	Convenience, public transportation, shuttles, convenient location

Source: compiled by this study

The evaluation aspects were used to explore the emphasis indicators of resort hotel customers' Internet word-of-mouth, which expressed the resort hotel service item evaluations and feelings emphasized by customers. The feature terms were summarized, representative and meaningful keywords were created, which were then used in data analysis.

Data Analysis

This study viewed the service aspect of resort hotels as a single analytical objective (such as tours, customer service, quality of rooms, room reservations, food and drink, environment, facilities, and transportation). The words and terms relating to each analytical objective were seen as feature keywords, which represented the service features of resort hotels. From the list of feature term items, the meaningful feature terms that could represent resort hotel customer satisfaction were extracted to calculate the number of instances they appeared in the original database. The data was also divided into six years, from

2005 to 2010, listing the collinear data between the satisfaction items and the feature terms to identify the correlations.

The correspondence table was a bidirectional cross table formed by the research subjects and the reflected types. The evaluations were divided into three ranks, which were positive, negative, and neutral. These four types of customers, together with the frequency of responses (number of customers) in the three answers were used to research and understand the preferences for services provided by resort hotel operators each year.

Dynamic analysis used the frequency data of the columns (variables) as the observed values, and the characteristics of the research subjects were listed on the same row. The appeared marginal relative instances were used to show the relationship between the research subjects and the data correlation variables. This study used the above analysis for six years of data. The study finally used dynamic correspondence analysis to understand the Internet word-of-mouth by customers on resort hotels in different years. Line graphs were used to explain changes in the evaluation frequencies for feature terms in different years. The changes in the frequency of customer evaluations on the items and feature terms over the years could be used as a reference for resort hotel operators in future management.

RESEARCH RESULTS AND ANALYSIS

Dynamic Analysis of Internet Word-of-Mouth Satisfaction for Resort Hotels

This study organized resort hotel Internet word-of-mouth satisfaction, as shown in Table 2. As the chart shows, in 2005, most of the overall evaluations of the four types of resort hotels were positive evaluations. The scenic area type, urban type, hot spring type, and amusement park type had the respective ratios of 79.61%, 71.31%, 68.53%, and 70.18%, which showed that the Taiwanese resort hotel industry had good satisfaction ratings, reaching an overall satisfaction over 65%. Overall satisfaction gradually increased year by year, until in 2010 all four types of resort hotels had achieved over 90% satisfaction.

Table 2: Chart of Internet word-of-mouth satisfaction regarding resort hotels

Year	Aspect	Detail	Scenic area		Urban type		Hot spring type		Amusement park type	
			Frequency	%	Frequency	%	Frequency	%	Frequency	%
2005	Evaluation	Positive	82	79.61	87	71.31	98	68.53	40	70.18
		Negative	4	3.88	23	18.85	22	15.39	7	12.28
		Neutral	17	16.51	12	9.84	23	16.08	10	17.54
	Total		103		122		143		57	
2006	Evaluation	Positive	143	76.47	111	77.62	123	74.55	49	69.01
		Negative	12	6.42	15	10.49	11	6.67	11	15.49
		Neutral	32	17.11	17	11.89	31	18.79	11	15.49
	Total		187		143		165		71	
2007	Evaluation	Positive	158	86.34	122	80.26	154	82.35	66	84.62
		Negative	11	6.01	12	7.90	11	5.88	4	5.13
		Neutral	14	7.65	18	11.84	22	11.765	8	10.26
	Total		183		152		187		78	
2008	Evaluation	Positive	189	87.10	148	90.80	222	94.87	91	80.53
		Negative	11	5.07	6	3.68	2	0.86	12	10.62
		Neutral	17	7.83	9	5.52	10	4.27	10	8.85
	Total		217		163		234		113	

2009	Evaluation	Positive	222	92.12	178	88.56	214	87.35	128	82.05
		Negative	4	1.66	10	4.98	5	2.04	6	3.85
		Neutral	15	6.22	13	6.47	26	10.61	22	14.10
	Total		241		201		245		156	
2010	Evaluation	Positive	266	92.04	237	93.31	277	92.95	188	93.53
		Negative	11	3.81	6	2.36	6	2.01	4	1.99
		Neutral	12	4.15	11	4.33	15	5.03	9	4.48
	Total		289		254		298		201	

Source: compiled by this study

Figure 1 shows that scenic area resort hotels started out with 80% positive evaluations, and that they gradually increased after 2007; the positive evaluations for these hotels in 2005, 2007, and 2009 were higher than those for the other types of resort hotels. The positive evaluations for urban type resort hotels in 2005 were about 70%, and other than a slight decrease in 2009, there were stable yearly growths. The positive evaluations for hot spring type resort hotels in 2005 were about 70%; they grew dramatically between 2005 and 2008 by 26%, fell 7% in 2009, and increased again in 2010. The positive evaluations for amusement park type resort hotels in 2005 were about 70%. This was stagnant in 2006, but greatly increased to 84% in 2007. It was stagnant again until 2010, when it increased by 11%.

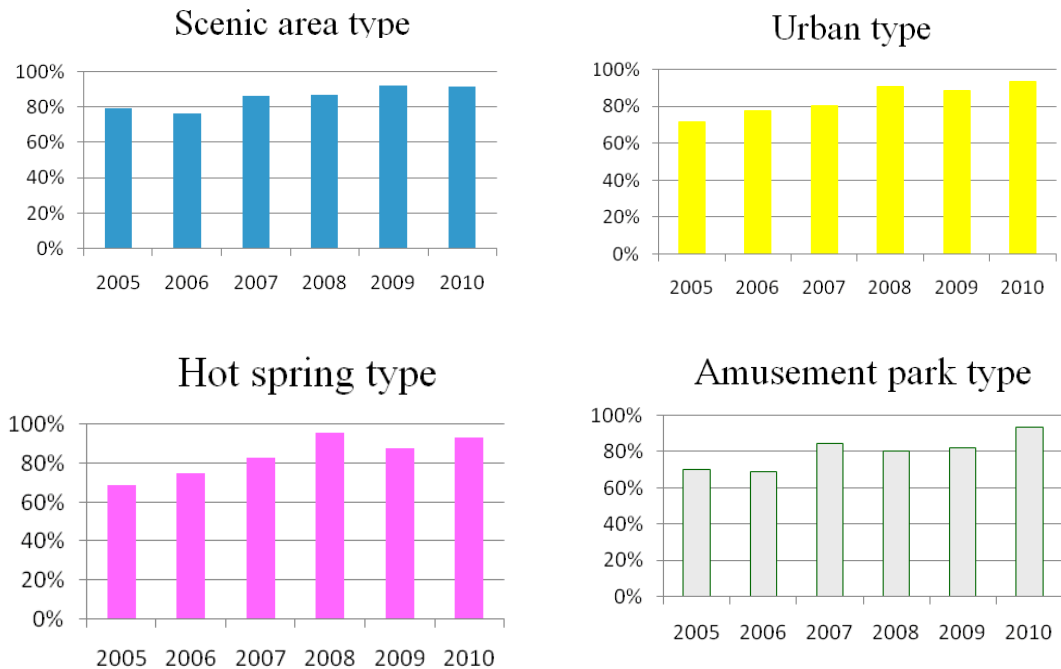


Figure 1: Dynamic analysis graphs of the positive evaluation for four types of resort hotels by customers

Dynamic Analysis of Internet Word-of-Mouth for Resort Hotels

As Figure 2 shows, scenic area type hotel customers were most concerned with the top three aspects of environment, food and drink, and facilities. The aspects of customer service, transportation, tours, and room reservations never showed significant increases, which indicated that they were not very important in terms of scenic area hotel management. Although the emphasis placed on food and drink, the quality of

the rooms, environment, and facilities changed, it still maintained at over 12.5%, which showed that the item always received high customer emphasis in scenic area hotel management.

Urban type hotel customers were most concerned with the top three aspects of food and drink, quality of rooms, and facilities, with food and drink receiving the most customer emphasis each year. Customer emphasis on customer service and environment fell greatly during the study period, while the emphasis on facilities increased greatly. This indicated that the businesses were actively improving the quality of their facilities; thus, there was a simultaneous increase in both emphasis and satisfaction.

Hot spring hotel customers were most concerned with the top three aspects of facilities, quality of rooms, and environment, with facilities receiving the most emphasis every year. Customer emphasis did not significantly increase for transportation, tours, and room reservation aspects; thus, they were not important for the management of urban type hotels. The emphasis on facilities greatly increased, which indicated that hot spring hotel operators have continuously enhanced their facilities, in order to satisfy customer needs. On the whole, customers placed the most emphasis on the actual hot springs.

Amusement park type hotel customers showed larger differences each year, in terms of what they placed the most importance on; however, the two aspects that were always most important were the environment and the facilities. Amusement park type hotels have a clear focus in management, in which the customers greatly emphasize amusement facilities. Amusement parks are mostly located in suburbs with sufficient conditions for the development of natural and ecological tourism, and the businesses have continuously improved their advantages, causing significant elevations in the emphasis on environment and facilities items.

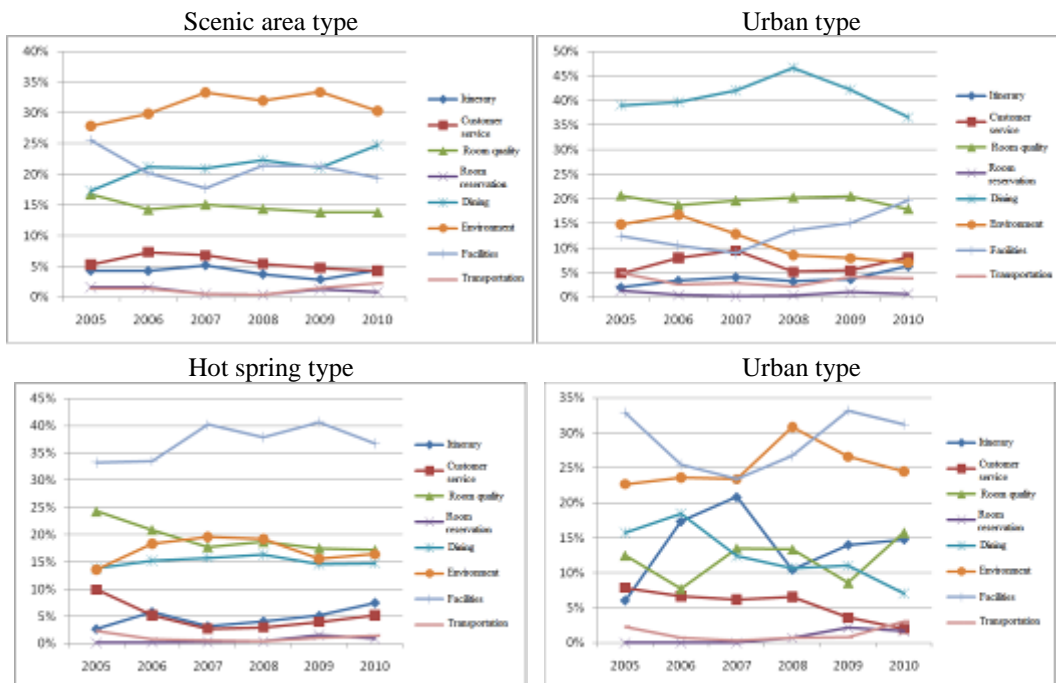


Figure 2: Dynamic analysis graphs for the four types of resort hotel customers and aspects

CONCLUSIONS AND SUGGESTIONS

This study captured articles on resort hotels from blogs at websites such as Wretch, Yahoo, and Yam for Internet word-of-mouth data analysis, using 4203 valid samples posted between 2005 and 2010. The research results showed that scenic area type consumers were most concerned with items of environment and scenery, followed by the deliciousness of food and drink. During this period, the emphasis and satisfaction for gym facilities, swimming pools, hot springs, spa facilities, room sizes, room cleanliness, and types and deliciousness of food and drink increased significantly each year, which indicated that scenic area type resort hotels had continuously improved the quality of various services and facilities, including food and drink, rooms, and water facilities. The management orientation had become more diverse and comprehensive; thus, it gained good word-of-mouth evaluation in different aspects.

Between 2005 and 2010, urban type consumers placed the most emphasis on the deliciousness of food and drink and types of cuisine, and during this period they showed increased satisfaction in regard to items such as food and drink, room facilities, and comfortable environments. Customer satisfaction and the emphasis on food and drink increased each year, which also influenced other types of resort hotels. Afternoon tea and snacks were a unique competitive advantage of the urban type hotels. On the other hand, due to the popularity of the Internet, urban type hotels had the highest satisfaction for Internet access, which was another competitive advantage.

Between 2005 and 2010, hot spring type consumers were most concerned with hot springs and SPA. Although scenic area type hotels also received high evaluations in hot springs, there are differences in the water quality of hot springs, and hot spring type hotels tend to have health and beauty benefits, so they maintained a high advantage. The management orientation of hot spring type and scenic area type hotels has become similar, and the customer satisfaction and emphasis for environmental scenery, comfort, and surrounding environment at hot spring type hotels has increased each year. In 2010, the evaluations for the environment and scenery even surpassed those of scenic area type hotels. This indicated that hot spring type resort hotels and scenic area type resort hotels had entered a highly competitive state.

Between 2005 and 2010 amusement park type consumers placed the greatest emphasis on the amusement areas, surrounding environment, scenery, and environmental comfort. Amusement park type resort hotels tend to be jointly managed along with major theme parks, so the tourist consumption needs are focused on game facilities. The game facilities of theme parks have continued to evolve, stimulating tourist demands with more diverse and abundant game facilities. During this period the amusement park type hotels had the highest satisfaction evaluation regarding the gaming areas. In addition, since most amusement parks are located in the suburbs, operators could use the environment as a base for their management, so the evaluation regarding the environment aspect was always high.

REFERENCES

- Flint, D.J.; Blocker, C.P.; Boutin, P.J. (2011) Customer value anticipation, customer satisfaction and loyalty: An empirical examination. *Industrial Marketing Management* 40 (2) , 219-230.
- Fonseca, J. R. S. (2009) . Customer satisfaction study via a latent segment model. *Journal of Retailing and Consumer Services*. 16 (5) , 352-359.
- Gustafsson, A. (2009) . Customer satisfaction with service recovery. *Journal of Business Research* .62 (11) , 1220-1222.
- Hou, C.I., Huang, H.C., Hsu, H.C. (2008). Exploration of Decision-Making by Consumers in Selection of International Tourist Hotels. *Yu Da Academic Journal*, 17, 49-71.

- Jiang, Y., Shang, J. & Liu, Y. (2010). Maximizing customer satisfaction through an online recommendation system: A novel associative classification model. *Decision Support Systems*, 48 (3), 470-479.
- Li, C.M. (1998). *The Practice of Guest Room Management*. Taipei: Yang Chih Publishing.
- Lin, S.W. (2007). Service Quality Satisfaction and Behavioral Intent of Customers of International Tourist Hotels, *Journal of Kaohsiung Hospitality College*, 9, 39-61
- Lin, W.S., Tang, C.H. (2010). Study on the Persuasion Effect of Internet Word-of-Mouth. *Marketing Review*, 7 (2), 187-208.
- Parasuraman, A., V. A. Zeithaml, and L. L. Berry, (1985). A conceptual model of servicequality and its implications for futurereasearch, *Journal of Marketing*, 49 (4) :41-50.
- Ting, I.H., Chen, M.Y. (2005). *Data Mining*. Taichung City: Cang Hai Books.
- Taiwan Network Information Center (2010). Taiwan Internet Usage Survey. Retrieved on: 4/30/2010, from:
<http://www.twNIC.net.tw/download/200307/1001e.pdf>
- Yuksel A., Yuksel F., Bilim Y. (2010). Destination attachment: Effects on customer satisfaction and cognitive, affective and conative loyalty. *Tourism Management*, 31, 274-284.