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## **An Evaluation of Taiwanese B&B Service Quality Using the IPA Model**

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### **Abstract**

According to a December 2011 report released by Taiwan's Tourism Bureau, there were 3,763 bed-and-breakfast guesthouses (B&B) in Taiwan, 3,367 of which were legal with a combined 13,389 rooms, increasing by 96 percent from December 2006. It seems that the B&B sector is quite a popular target for investors. As the word-of-mouth advertising has been considered one of the most influential marketing methods, those who invest in B&Bs must manage to utilize their limited resources to improve customer satisfaction in a fast-growing and competitive market. The best marketing approach in reaching out to B&B customers, as suggested by this study's author, would be word-of-mouth advertising.

A PZB framed questionnaire is used in this study to explore the expectations and satisfaction of B&B customers both before and after the accommodation period, with the Importance-Performance Analysis (IPA) model applied to analyze and measure the service quality. Findings from the questionnaire survey showed 3 out of the totally 23 service factors falling in the "concentrated concerned" quadrant (i.e., tidiness, architectural characteristics, and reasonable rates); 6 factors falling in the "continued maintenance" quadrant (i.e., adequate parking place, commitment to customers, handling of customers' opinions, legality of B&B, grievance handling, and the local specialties-ordering service); 10 factors falling in the "low priority" quadrant (i.e., modern facilities, safety devices, availability of breakfast, security of online reservations); 4 factors falling in the "over-strived" quadrant (i.e., the availability of custom-made services, the ability to grasp customers' needs, the availability of tour packages, and the availability of experiences regarding local industries).

**Keywords:** *service quality, B&B, IPA, PZB*

## **Introduction**

According a December 2011 report released by Taiwan's Tourism Bureau, there were 3,763 bed-and-breakfast (B&B) guesthouses in Taiwan, 3,367 of which were legal with a combined 13,389 rooms, increasing by 96 percent from December 2006. It seems that the B&B sector is quite a popular target for investors. The Nantou, Hualien and Yilan Counties, known for scenic beauty, currently account for the largest part of legal B&Bs in Taiwan. At the beginning of 2000, B&B was just a second- or third-best choice for foreign visitors in Taiwan, compared with hotels. The B&B sector has since been improving in the number of guestrooms as well as business operations, offering a 3-in-1 service that includes accommodations, dining and tourist amenities. That is the reason why most visitors in Taiwan would now choose to stay in B&Bs instead of hotels. With word-of-mouth advertising considered one of the most influential marketing methods, those who invest in B&Bs must manage to utilize their limited resources to improve customer satisfaction in the fast-growing and competitive market. The best marketing approach in reaching out to B&B customers would be word-of-mouth advertising, as a result.

A PZB framed questionnaire is used in this study to explore the expectations and satisfaction of B&B customers both before and after the accommodation period, with the IPA Importance-Performance Analysis (IPA) model applied to analyze and measure the service quality. This study is intended to identify, by means of the IPA model, key factors that affect B&B's service quality. The flowchart of research process is shown in Fig.1.

## **Literature Review**

The B&B service industry has drawn much attention and enthusiasm in Taiwan over the past 10 years, although it is believed to be originated in Europe one hundred years ago. More than just a place to accommodate and feed tourists, the B&B also provides them a warm, family-like feeling during the stay. Unlike hotels, B&Bs are almost always located in the beautiful countryside or near tourist attractions. The host of B&B would usually give the most enthusiastic services to their guests while multi-tasking as a B&B manager, salesperson, cook, room service provider and tour guide (Hayes et al., 2011).

According to Taiwan's B&B Act, which cleared the legislature in 2001, a typical B&B guesthouse should measure below 150 square meters in area, with no more than 5 bedrooms available in each B&B. Exceptions are made for B&Bs in special tourist areas, where each guesthouse could measure up to 200 square meters with 15 bedrooms in total. What makes a B&B unique involves several aspects, namely the local culture, natural landscape, ecology, environmental resources and rural activities. The B&B industry provides a means for Taiwan to handle the growing tourist arrival with an increased accommodation capacity. Unlike a typical hotel that requires guests to check in, enjoy dining services and stay overnight before checking out, the B&B features so many distinctive elements that prompt many tourists to choose them over hotels (King and Cichy, 2006).

At their inception, B&B guesthouses were found in the countryside where accommodation facilities are not always available, forcing the weary travelers to pay local families for food and accommodations. B&Bs have been popular in Britain and

Europe for many years, but only recently have they gained wide acceptance in North America as a legitimate and popular type of accommodations. Because of its increasing popularity, B&Bs are offering a considerable range of services, most of which are legal but some varying greatly from the initial definition of “B&B” (Stutts and Wortman, 2006).

Taylor (2001) mentioned four different establishments that may call themselves B&Bs. A true B&B falls into the first category, or private homes, which are usually found in residential areas with one or two family members running the business. Spare bedrooms in a private home are set aside for guests and breakfast served by the host(s). B&Bs of the second type are family-run, small lodges/inns owned and operated by a host family. Although hosts of this type live right in the B&B and might join their guests for breakfast, it is unrealistic for a guest to expect intimate, family-like interactions with them. B&Bs of the third type are profit-minded commercial entities, but not genuine B&Bs; larger ones of them may take the forms of apartment suites stretching for blocks, cabins, motels or hotels. Most proprietors of this type live away from their B&Bs, offering no opportunities for guests to interact with host families because what they really want is a share of the B&B market. B&Bs of the fourth type offer a variety of unusual accommodations services (in a houseboat, camping trailer, recreational vehicle, tent, etc.) along with a fairly standard breakfast. This present study is focused on private-home B&Bs.

Hotch and Glassman (1992) suggest some rules to start and run a B&B, the first concerning a good location. The most important rule in operating B&Bs is to build them at a good location such as college towns, national parks, major historic sites, mid-sized business destination cities, and getaway locations like seashores and mountains. Rule number two is to devise a business plan, which does not have to be seamless and perfect, but the more detail we put into them, the better. Rule number three is to research the market with common sense, using resources of the local Chamber of Commerce because it will eventually be of great help in terms of liaison. Before opening a B&B, remember to talk to representatives of associations of innkeepers or B&Bs, if there is one. Most regions with any concentration of B&Bs have such local or regional associations, which are great sources of advice for those who wish to start a B&B. During the market-research period, one should visit several B&Bs, preferably spending the night there and paying the full rate without asking for discounts. Also, they ought to talk to local banks involved in the hospitality industry as an aspiring small-business owner who might seek financing in the future. Rule number four is to ask oneself “who am I, and what do I want?” The B&B is the ultimate example of niche marketing since any imaginable type of B&B probably has a market somewhere. It is important to make sure, however, that the niche of a B&B is not too small to support the proprietor. A soon-to-be B&B owner is advised to spend some time writing down the stages of B&B project and experiences to be offered to the guests. Rule number five is to do a trial run of the B&B project. As Hotch and Glassman said, working as a B&B keeper for someone else, either as a B&B sitter in an apprenticeship program or as a resident B&B keeper, is the best way to prepare oneself for the realities of B&B keeping.

Notarius and Brewer (1996) describe B&B as a generic term for accommodations offered in private homes rather than commercial facilities such as hotels or motels. The

difference between a private-home B&B, a B&B inn, and a commercial inn are mainly dependent on the number of rooms. A private-home B&B has one to five rooms; a B&B inn, four to ten; a commercial inn, more than ten. In a private home, the host and hostess use their extra rooms to build friendship with interesting people and earn additional income. They have the right to decide which types of guests they enjoy being around and which they do not, although only those who do not rely solely on B&B for a living can afford to do so. A commercial inn owner, for instance, needs to maintain a certain occupancy rate for survival and cannot afford to be choosy about guests.

For B&B guests, the best breakfasts are those that fit in their schedules and give them a chance to know more about the hosts. Consequently, the B&B breakfast styles vary depending on the guests and their dietary preferences, how much time the hosts have to share with the guests, and how much the hosts enjoy the food preparation. While many B&B hosts consider serving a unique breakfast a real highlight during a customer's visit, others prefer a simple breakfast. When planning the menu, B&B proprietors should first ask themselves the question, "How many guests I am going to serve breakfast to?". A romantic breakfast for two calls for a distinctively different plan from the breakfast for a family of five that will soon be joined by two adult couples. The hosts had better confirm the number of guests present at the breakfast the night before, so as to decide how quickly the meal should be ready, and whether it should be a leisurely or special breakfast (O'Fallon and Rutherford, 2011).

This paper is focused on the service quality of B&Bs, so the famous service quality theory proposed by Parasuraman, Zeithaml and Berry (1985) is included in the literature review. The SERVQUAL is a multiple-item scale that measures consumers' perceptions of service quality. The five key factors in the SERVQUAL scale are reliability, tangibles, responsiveness, assurance, and empathy related to the service quality. Service-quality factors were first proposed by PZB in 1985. Later in 1988, they used the factor analysis method to reduce the ten factors they proposed three years ago to five concerning the evaluation of service quality. This present study is based on the SERVQUAL scale, widely applied in most previous literature.

### **IPA Application and Questionnaire**

Introduced by Martilla and James (1977), the IPA theory helps managers confirm the service factors and subsequently improve customer satisfaction (1999). The theory's underlying assumption is based on how important a service is to customers and how well a service is performed by B&B hosts. Results of the analysis enable one to determine the priority of B&B service factors. In the IPA theory, Importance and Performance are depicted with a combination of X and Y coordinates, with the X coordinate indicating the degree of Performance and Y coordinate the Importance. An outcome may fall in any of the four quadrants, namely "Concentrate here (i.e., high importance, low performance)", "Keep up with the good work (i.e., high importance, high performance)", "Low priority (i.e., low importance, low performance)" and "Possible overkill (i.e., low importance, high performance)".

This present study adopts a questionnaire that includes demographic statistics to analyze the importance and performance concerning B&B service quality. Using the IPA method, this study is also expected to offer B&B hosts advice on improvements. The research framework of this study is shown in Fig.1.

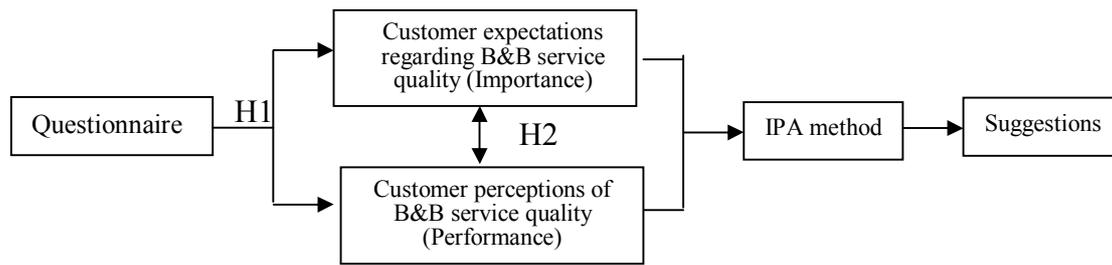


Figure 1. The research framework of this study

Among the three parts of questionnaire used in this study, the first one involves the four factors of B&B styles (i.e., location, type, room design, room rates). The second part involves the B&B service factors, based on the PZB reliability, tangibles, responsiveness, assurance, and empathy. The questionnaire items include totally 23 factors ranging from customers' expectations of the B&B before checking in, to their perceptions of the facility after checking out of it. The Likert five-point scale is used to measure the customers' expectations before checking in, with the five optional levels being "very important", "important", "so-so", "unimportant" and "very unimportant". The customers' perceptions of a B&B during their stay is measured with such options as "highly satisfactory", "satisfactory", "so-so", "unsatisfactory" and "highly unsatisfactory". The third part of questionnaire includes 10 items with regard to the customers' demographic facts (i.e., gender, age, educational attainment, occupation, marital status, number of children, income, the idea of reasonable room rates, means of transportation, and the source of B&B information).

The samples were chosen from those who live in Taipei and had been to a B&B, with accommodations experiences within two years. The calculation of sample size was based on Hwang's sampling formula  $n = p(1-p)(z/e)^2$ . The probability value  $p$  is set at 0.25 in a reserved manner. Given the 95-percent reliability level, the tolerable error value  $e$  is set at 0.05. Meanwhile,  $z$  is 1.96 when  $\alpha$  is 0.05. Finally,  $n = 0.25(1-0.25)(1.96/0.05)^2 = 288$  samples, which means the sample size had better exceed 288. To sum up, 299 out of the totally 350 copies of questionnaire given out were returned valid, hence the approximately 85-percent response rate.

### Results and Discussions

The statistical software of SPSS for Windows 10.0 version was used in questionnaire analysis. The calculation of questionnaire reliability is based on the Cronbach's Alpha coefficient. According to the Cuieford suggestion, an  $\alpha$  larger than 0.7 indicates "highly reliable" and larger than 0.5 "reliable".  $\alpha$  for this questionnaire is 0.9434, which indicates a relatively high and acceptable reliability. The questionnaire also proves the satisfying in terms of content validity, criterion-related validity, and construct validity.

The samples show that most B&B customers are aged between 26 and 35 years old (67.2 percent); have a college or higher degree (70.9 percent); are unmarried (82.3 percent) and childless (86 percent); earn a monthly income ranging from NT\$ 30,000 to NT\$ 40,000, or US\$ 1,000 to 1,333 (37.1 percent). The customers' ideas of reasonable room rates ranged somewhat extensively from NT\$ 300 to NT\$ 1,100 due to personal

preferences. The most common means of transportation is car (70.2 percent), while 47.2 percent of the customers obtained B&B information via the Internet.

The most popular B&B location is in eastern Taiwan (36.5 percent of respondents), followed by central Taiwan (34.4 percent). The most popular B&B style is wooden cottage or Europe buildings (43.1 percent), followed by modernist concrete structures (41.1 percent). The most popular room is a suite for two (48.8 percent). The most common rates per person per night ranges from NT\$ 1,100 to NT\$ 1,400 (27.1 percent), following by NT\$ 800-NT\$ 1,100 (20.4 percent).

The IPA method was used to analyze the B&B-relevant importance and performance reported by customers. As Figure 2 shows, the 23 factors fall in four different quadrants, namely three in quadrant I; six in quadrant II; ten in quadrant III; four in quadrant IV.

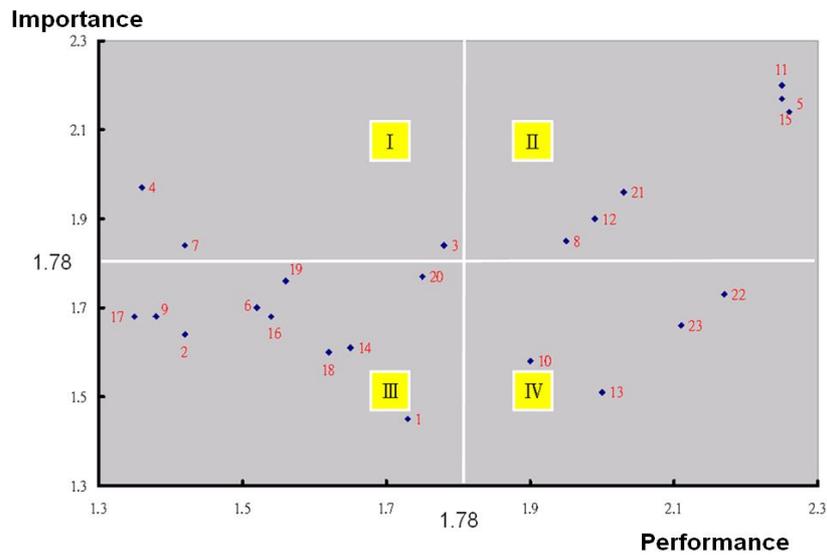


Figure 2. IPA distribution of Taiwanese B&Bs' service quality

1. Modern facilities and pleasant scenery
2. Fire safety equipment
3. Tidiness
4. Architectural design/layout
5. Adequate parking space
6. Availability of breakfast
7. Reasonable room rates
8. Commitment to customers
9. Reliable Internet access
10. Custom-made services
11. Grievance handling
12. Legal business certification
13. Timely services
14. Immediate response to customers' needs
15. Being able to solve complaints quickly
16. Professionalism
17. Confidence in services
18. Safety/reliability accommodations
19. Courteous and friendly services
20. First-aid measures

21. Local specialties-ordering service
22. Availability of tour packages
23. Availability of experiences regarding local industries

In the first quadrant of the IPA model for Taiwanese B&B, as shown above, three factors are very important to customers but need to be improved by the hosts (i.e., tidiness, architectural design/layout, and reasonable room rates). Therefore, how to provide better rates in a nice environment is a major concern of B&B hosts who looks forward to improved sales in the market.

The six factors in the second quadrant are adequate parking space, commitment to customers, grievance handling, legal business certification, being able to solve complaints quickly, and assistance in ordering local specialties. The finding suggests that customer expectations and perceptions are of the same importance, so the hosts should keep up service performances in this quadrant to bolster competitiveness and customer satisfaction.

The ten factors in the third quadrant are modern facilities, pleasant scenery, fire safety equipment, safe and reliable accommodations, immediate response to customers' needs, reliable Internet access, professionalism, courteous and friendly services, confidence in services, and first-aid measures. These factors are minor concerns compared to those in the other quadrants for their relatively low performance/importance. That is, much is left to be desired and improved in this regard.

The four factors in the fourth quadrant are custom-made services, timely services, the availability of tour packages and experiences regarding local industries. These factors are minor concerns of the guests, but the hosts have done a lot more than what customers expected, which means the customers' perceptions exceeded their expectations regarding the B&B's service quality. Since these four factors are the competitive advantage of B&B industry, there is no need yet to spend too much resource on efforts in this area.

### **Conclusions**

Findings from this study showed that the PZB framed questionnaire is a useful tool to explore the expectations and satisfaction of B&B customers before and after the accommodations period. Also, the IPA model proves effective in analyzing and measuring the B&B service quality. The four conclusions of this study are stated as follows:

1. Three out of the 23 service quality factors fall in the “concentrated concerned” quadrant (i.e., tidiness, architectural characteristics and reasonable rates); they are the top concerns of B&B guests and need to be improved by the hosts. In other words, customers would like to stay in a clean, stylish and affordable B&B.
2. Six factors fall in the “continued maintenance” quadrant (i.e., adequate parking space, commitment to customers, handling of customers' opinions, legal B&B certification, the ability to solve complains, and the availability of ordering service for local specialties). These factors are quite important to customers and reflect the hosts' good performance in responding to customers' needs. That is, the hosts had better keep up the good work in this quadrant on a sustainable basis.
3. The ten factors in the “low priority” quadrant are of little importance to either the B&B customers or the hosts. Considering the four factors in the “over-strived”

quadrant (i.e., custom-made services, the ability to grasp customers' needs, the availability of tour packages, and availability of experiences regarding local industries), perhaps the customers now care little about them compared to the other service factors.

4. Much is left to be desired about B&Bs in Taiwan, given its relatively short history compared to those in Europe and the U.S. Findings from this study, however, make it easier for Taiwanese B&B proprietors to find a better way to enhance service quality. Apparently, Taiwanese B&Bs will grow at a steady yet fast space in the near future.

### **Acknowledgement**

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