Five-star Quality at Three-star Prices?
Opaque Booking and Hotel Service Expectations

Abstract
While opaque products and distribution channels are increasingly popular, little is known about how customers perceive the quality of opaque hotel rooms. This study examined how price and star-rating affect customers' service expectations when booking through opaque channels, and explored if different market segments differ in their expectations. An experimental design with six price and star-rating scenarios was employed. As predicted, expectations were significantly lower in opaque bookings. Moreover, customers were willing to compromise certain aspects of five-star service quality in exchange for opaque prices, such as room décor. Findings also revealed that customers who typically stayed at five-star hotels had the biggest gap in their expectations of three-star versus five-star hotel rooms of similar prices. As opaque selling is relatively new in Asia, this study is the first to explore customers' perceptions of opaque booking from the perspective of younger, Hong Kong consumers. Theoretical and practical implications are discussed.

Keywords
opaque selling; opaque booking; price; service quality; customer expectation

INTRODUCTION

Opaque selling refers to selling products while concealing the identity of the supplier or certain key characteristics of the product from consumers until after purchase (Fay, 2008). With the availability of the internet and online booking, opaque selling emerged as an innovative form of service pricing (Anderson & Xie, 2014). Not only does opaque selling help firms promote their unsold inventory, it also allows for differential pricing to sell some products at regular prices to loyal or brand-sensitive customers and other products at discount prices to non-loyal or price-sensitive customers (Anderson & Xie, 2014; Chen & Yuan, 2016; Courty & Liu, 2013).

Common opaque selling products in hospitality and tourism include flights, hotel rooms, rental cars, and vacation packages. Opaque selling exists in other industries as well, such as cut label sales where designer brand labels are removed or "surprise grab bags" where mystery items of a certain type (e.g., clothes, stationery, video games) are packaged together at discount prices.

Priceline and Hotwire represent the two earliest and most well-known models of opaque selling in hospitality and tourism, with Priceline's "Name Your Own Price" feature in 1998 and Hotwire's "Hot Rates" in 2000. With the success of Priceline and Hotwire, more and more online travel agencies (OTAs) have adopted the concept and offer opaque booking options, including Expedia's "Unpublished Rate Hotels," Travelocity's "Top Secret Hotels," Agoda's "Secret Deals," and Lastminute.com's "Top Secret Hotels." Some smaller OTAs also specialize in last-minute, opaque products, such as LateRooms.com, LastMinuteTravel.com, SecretEscapes.com, and SecretHotelsLondon.com. While most OTAs follow Hotwire's posted price model in opaque selling, Priceline has inspired a series of "bidding tips" websites where people share their winning bids so that future customers can make informed bids, such as BiddingForTravel.com, BetterBidding.com, BiddingTraveler.com, and HotelDealsRevealed.com.

In hospitality and tourism literature, there has not been a lot of research on opaque selling from consumers' perspective. Previous studies focused more on the supply side, such as different pricing models and settings in opaque selling (e.g., Courty & Liu, 2013; Hinz, Hann, & Spann, 2011; Jerath, Netessine, Veeraraghavan, 2010), the role of opaque selling in product strategy and market segmentation (e.g., Anderson & Xie, 2014; Ogonowska, 2012; Shapiro & Shi, 2008; Tappata & Cossa, 2014), and the impact of opaque selling on revenue and profitability (e.g., Fay, 2008; Jiang, 2007; Shapiro & Zillante, 2009). On the demand side, only a handful of studies have examined the perceived risks, benefits, and fairness of opaque pricing (e.g., Chen & Yuan, 2016;

Lee & Jang, 2013) as well as consumers' bidding, bargaining, and information processing strategies (e.g., Chen & Yuan, 2014; Chen, Jai, & Yuan, 2017; Joo, Mazumdar, & Raj, 2012).

Chen and Yuan (2014) argued that "understanding the variability of consumer behavior should be the priority" in opaque selling research (p. 310). While existing literature have examined consumer perceptions of the risks, benefits, and unfairness associated with opaque selling, interestingly they have not explored the basics of the opaque product itself: *How do customers perceive opaque rooms and what do they expect from their hotel bookings?* Opaque selling targets consumers who are lower valuation, brand-agnostic, and less sensitive to service characteristics (Anderson & Xie, 2014; Shapiro & Shi, 2008). Fay (2008) pointed out that opaque products "could be viewed as an example of a lower-quality version of an existing product" (p. 60). As opaque products are sold at discount prices, are customers aware that "you get what you pay for"? On the other hand, an opaque product is not necessarily "new." It is the same hotel room—sold through another distribution channel, priced differently, with some product features concealed, but the room itself has not been altered (Fay, 2008). Jerath et al. (2010) also pointed out that consumers who "purchase the opaque product end up receiving the same utility" and thus "higher net surplus" (p. 433). From consumers' perspective, does discount pricing influence how they perceive the quality of opaque products?

Price and quality have long been identified as two of the key drivers of consumer decision-making (Zeithaml, 1988). They form the basic components of "perceived value," which influences satisfaction, loyalty, and behavioral intentions (e.g., Jung, Sydnor, Lee, & Almanza, 2015; Varki & Colgate, 2001). Previous studies conceptualized perceived value as a tradeoff between price and quality. Specifically, the tradeoff was described as "give" and "get" (Zeithaml, 1988), "cost" and "benefit" (Varki & Colgate, 2001), and "benefit" and "sacrifice" (Boksberger

& Melsen, 2011; Lin, Sher, & Shih, 2005), with price being the give/cost/sacrifice required to obtain better quality products and services. The price-quality tradeoff also occurs in opaque selling. With discount rates and concealed information, opaque products are considered "damaged goods" and requires certain "compromises" from the consumers (Chen & Yuan, 2014; Jerath et al., 2010). As such, the price-quality relationship may be reversed in opaque selling. *Can quality be a sacrifice that consumers are willing to make to obtain an attractive price?* Previous studies on opaque travel selling have examined the perceived risks and benefits of opaque purchases, which is also a form of exchange (Chen & Yuan, 2014; 2016). Nevertheless, the focus was on the risks and benefits associated with the booking process, rather than the product itself. Customers' expectation of opaque products and the price-quality tradeoffs involved warrant further investigation.

Moreover, when booking through opaque channels, customers are not provided with the full information of the hotel. Price and star rating are the basic reference points for customers to evaluate hotel quality (Fay & Xie, 2008). Using star level to represent hotel quality, Courty and Liu (2013) emphasized that "the expected quality of the opaque room is known" to the consumers (p. 2). However, if customers reserve a five-star hotel with three-star prices through opaque booking, what level of service quality do they expect? What are the basics of five-star hotels that customers may demand regardless of price? Would they be more tolerant of certain substandard service or facility features because of the discount rates? Furthermore, customers can be segmented based on their choice of accommodation. Guests who typically stay at luxury, upscale, midscale, and budget hotels may have very different expectations when booking opaque hotels rooms at different prices and star levels.

The purpose of this study is to explore how price and star rating affect customers' service

expectations when booking through opaque channels. Specifically, research objectives are:

1. To compare if different posted prices on opaque booking websites would affect customers' hotel service expectations of three-star and five-star hotels.
2. To investigate if different star ratings presented by opaque booking websites would affect customers' service expectations of hotel rooms with the same price.
3. To explore the service expectations of different accommodation segments in various opaque booking scenarios.

Several OTAs with opaque booking options were considered for this study. Priceline and Hotwire represent two established models of opaque booking and have received more scholarly attention. While opaque selling is more common in the Americas and Europe, the practice is still quite new in Asia (Anderson & Xie, 2014). To explore the perceptions of the Asian market, Agoda.com was selected for this study because: 1) it is one of the leading online booking sites in Asia, 2) it has recently begun to offer opaque booking options in selected cities since 2014, and 3) the number of cities with opaque bookings available on Agoda.com has been steadily increasing.

LITERATURE REVIEW

Opaque Selling

As a form of price discrimination, opaque selling allows customers to purchase products at discounted prices without knowing the exact identity of the supplier (Courty & Liu, 2013; Pizam, 2011; Tappata & Cossa, 2014). It is a mix of product differentiation and price competition (Stole, 2007). Fay and Xie (2008) developed the concept of probabilistic goods, which is a type of product offering that provides a *probability* of receiving one item from a set of possible items.

Opaque selling is also creating probabilistic goods by providing some characteristics of the product without revealing full information. In addition to being probabilistic, opaque goods can also be considered inferior or "damaged" (e.g., non-refundable), which is reflected in its lower prices and hence used to target price-sensitive customers (Deneckere & McAfee, 1996; Jerath et al., 2010; Shapiro & Varian, 2000).

Opaque selling websites adopt a customer-driven pricing strategy that sets prices based on customer's willingness to pay (Anderson, 2009; Chen & Yuan, 2014; Joo et al., 2012). There are generally two models of opaque selling: Priceline's "Name Your Own Price" (NYOP) and Hotwire's posted price selling (Courty & Liu, 2012). While Priceline's bidding model does not have posted prices, if the bid is below the "threshold price", it will be rejected (Joo et al., 2012). These two platforms also differ in the interaction between buyers and sellers and the amount of information disclosed to customers (Tappata & Cossa, 2014). Various studies have examined these two mechanisms. Hann and Terwiesch (2003) studied the optimal design and offering behavior of NYOP and discussed its relevance to revenue generation and customer satisfaction. Shapiro and Shi (2008) focused on the product offerings in Priceline and Hotwires at posted prices. Ogonowska's (2012) study illustrated the possible joint-implementation of NYOP and posted price mechanism, which can counter-balance the propensity to pay. If agents underestimate the propensity to pay, they will purchase through the posted-price channel. On the other hand, if the propensity to pay is high, they will bid through the NYOP channel.

Customer Perceptions of Opaque Booking

Existing research on opaque selling focused more on the supply side. There are fewer studies on opaque products from consumers' perspective. Opaque products, specifically

hospitality and tourism services, are typically purchased online, and customers' behavioral intentions are influenced by their perceived risks and benefits (Chen & Dubinsky, 2003; Forsythe et al., 2006; Shareef et al., 2013). Chen and Yuan (2014) identified customers' concerns with regard to opaque platforms. Due to incomplete product information, customers need to make more price comparisons and endure higher risks. Huang and Yu (2014) made a similar point about consumer's lack of information, although their perspective was not product information but the firm's pricing strategy. They argued that most customers are not familiar with the seller's opaque product offering strategies. Thus, customers can only rely on anecdotal reasoning (e.g., stories they heard from other customers) rather than make rational decisions when making opaque purchases. There are also risks associated with opaque websites, including product performance, time/convenience, financial, psychological, social, physical, and security risks (Chen & Yuan, 2016; Fay & Xie, 2008; Forsythe et al., 2006; Kim et al., 2009). In particular, hotel performance and website creditability may affect customer's evaluation of opaque hotel rooms. Another disadvantage of opaque selling is the sense of unfairness that customers may perceive (Lee & Jang, 2013). Due to price discrimination, a range of discounts may be offered across different platforms. The information and stories shared by others through word-of-mouth can further amplify customers' sense of unfairness.

Nevertheless, opaque products have their benefits, including price, quality, psychological benefits, and ease of shopping (Chen & Yuan, 2016). For opaque hotel rooms, customers can enjoy 30%-50% off the retail rate (Courty & Liu, 2012; Tappata & Cossa, 2014). Additional psychological benefits include the excitement of bidding, winning/beating the system, and the pleasure of saving money (Chen & Yuan, 2016; Lee, Kim, & Fairhurst, 2009). Website functionality also affects customer's online shopping experience (Bai, Law, & Wen, 2008; Kim,

Chung, & Lee, 2011). Compared to other websites, opaque selling platforms provide the advantage of choice simplification (Chen & Yuan, 2014). Customers do not have to go through a long process of information search nor alternative comparisons. These benefits attract customers to book through opaque channels.

Consumers can apply different strategies to cope with the risks of opaque purchases, such as: look for previous user reviews, analyze brand image and company reputation, and search multiple sources for relevant information (Chen & Yuan, 2014; 2016). Chen, Jai, and Yuan (2017) further examined the role of information levels (e.g., no message, preventative message, and promotional message) on customers' purchase intentions. They found that information levels can reduce perceived risks and thus increase the likelihood to book hotels through opaque websites. Purchasing intentions and strategies also vary by customer types. Service-oriented customers tend to make early purchases for better selections, while price-sensitive customers prefer to wait for last-minute opaque product offerings to receive the best price (Jerath et al., 2010). As for coping strategies, customers who perceive greater benefits of opaque bookings tend to require fewer coping strategies, while those who perceive a high level of risk would implement more coping strategies (Chen & Yuan, 2016). Therefore, opaque products are less attractive to risk-neutral or risk-adverse customers (Fay & Xie, 2008).

Price and Quality of Opaque Products

Customers have to assess and weigh the risks (e.g., anxiety, uncertainty, website credibility) and benefits (e.g., thrill, saving money) when making opaque purchases (Chen & Yuan, 2016). Specifically, a major tradeoff for them to consider is between price and quality. With discount rates and concealed information, would the quality of the product be up to par?

Consumers' perception of price and quality has been well examined in marketing and consumer research (Zeithaml, 1988). In general, there is a positive relationship between price and perceived quality. The higher the price, the higher the consumers' perception of quality and intention to purchase (Lee, 2013). Campo and Yague (2008) also found that quality and sacrifice perceived by customers are the main antecedents of satisfaction. On one hand, price is an indicator of product quality. On the other hand, price also indicates the amount of the sacrifice needed to exchange for a product. The pricing decision of a firm will set customers' expectation for the experience, which can further influence their satisfaction and loyalty (Klie, 2013). Chen, Yang, Li, and Liu (2015) identified an inverse U shaped relationship between price and hotel guest satisfaction. At lower price levels (e.g., off-peak season, low occupancy), room price and food and beverage price led to increased guest satisfaction. At higher price levels, however, the relationship between price and satisfaction was found to be negative, whereas the relationship between quality and satisfaction was consistently positive.

As an innovative pricing strategy and business model, opaque selling challenges existing price-quality relationships. Price is often regarded as a "cost" or "sacrifice" that consumers must make in order to receive high quality products and services (Boksberger & Melsen, 2011; Lin, Sher, & Shih, 2005; Varki & Colgate, 2001). While the tradeoff between price and quality still holds true in opaque selling, quality may become the sacrifice in exchange for opaque prices. According to Huang and Yu (2014), when deciding whether to accept a given rate on opaque websites, "consumers have to trade off between the certain price paid and the uncertain value of the product they are about to be offered" (p. 744). In addition to uncertainty (e.g., not knowing the name and brand of the hotel), customers also risk product quality—that the service may not be as expected and may not match the level of the hotel (Chen & Yuan, 2016). Although previous

studies have pointed out that quality may be a major concern in opaque products, the relationship between price and quality has not been explored. Moreover, quality is a multi-dimensional construct. It is necessary to take a closer look at the different aspects of quality, specifically in the context of opaque hotel bookings.

Parasuraman, Zeithaml, and Berry (1991) developed the SERVQUAL scale to measure quality in service industries, with five dimensions: tangibles, reliability, responsiveness, assurance, and empathy. While SERVQUAL has been adopted extensively in hospitality and tourism research (e.g., Akbaba, 2006; Marinković, Senić, Kocić, & Šapić, 2013; Pakdila & Aydin, 2007; Rauch, Collins, Nale, & Barr, 2015; Ryan & Cliff, 1997), scholars have also proposed other measurements of service quality specific to the hotel industry. In Choi and Chu's (1999) study on travelers' perception of hotel service and facilities, they classified 33 hotel attributes into seven factors: staff service quality, room quality, general amenities, business service, value, security, and IDD facilities. Hua, Chan, and Mao (2009) also identified five dimensions in the critical success factors of budget hotels: service quality, physical product, promotion, location, and price. Compared to the SERVQUAL scale, studies on hotels have incorporated more attributes on the tangible aspects of the hotel product, such as location, amenities, room quality, and facilities.

Moreover, customer's perception of service quality is shaped by the actual service they received as well as their expectations (Zeithaml et al., 1996). Expectation serves as a major determinant of perceived service quality and customer satisfaction (Gures et al., 2014; McKinney, Yoon, & Zahedi, 2002; Oliver, 2010; Seth, Deshmukh, & Vrat, 2005; Tsai et al., 2011). Therefore, managing customer expectation is key to enhance customer satisfaction (Hsieh et al., 2011; Pakdila & Aydin, 2007). However, it may be difficult for customers to form proper

expectations on the quality of opaque products, as many product details are not revealed at the time of purchase. When booking hotel rooms through opaque channels, customers do not know the brand, cannot see photos, and cannot read reviews by previous guests. Therefore, this can potentially widen the gap between customer's expectation and satisfaction.

While opaque selling OTAs generally do not disclose the full information of hotel listings, price and star rating are the basic information provided, which are also the key reference points for customers to evaluate hotel quality. Zeithaml (1988) and Brijball (2003) suggested that price is an important indicator of service quality when customers have little product information and lack of product experience. When customers are faced with quality uncertainty, they tend to use price as a positive predictor of quality (Brassington & Pettitt, 2007; Li & Hitt, 2010; Völckner & Hofmann, 2007). To examine the relationship between posted price and customer's expectation of opaque products, Hypothesis 1 is set up as follows:

> H_a: When booking opaque rooms of the same star rating, customer's service quality expectations are higher when the room rate is higher.

Hotel rating system is defined as "accommodation establishments of the same type (e.g. hotels, motels and inns) [being] conventionally broken down into classes, categories, or grades according to their common physical and service characteristics and established at government, industry or other private levels" (UNWTO & IHRA, 2004, p. 9). Previous studies have found that customers expect different levels of service based on hotel class (Liu & Liu, 1993; Pine & Phillips, 2005). Since star rating may also influence customer's expectation of opaque hotel rooms, Hypothesis 2 is proposed as follows:

> H_a: When booking opaque rooms of the same price, customer's expectations of a 5-star hotel room are higher than that of a 3-star hotel room.

METHODS

This research intended to examine how price and star rating would affect customers' service expectations when booking hotel rooms through opaque channels. Experimental design was adopted in this study to examine: (1) whether different posted prices on opaque booking websites would affect customers' hotel service expectations of three-star and five-star hotels, and (2) whether different star ratings presented by opaque booking websites would affect customers' service expectations of hotel rooms with the same price. Moreover, as scenario-based experiments could reduce biases from memory retrieval, rationalization tendencies, and other inconsistency factors (Grewal & Baker, 1994), several experimental scenarios were designed to test proposed hypotheses.

Experimental Scenarios

The scenario-based experiment in this study is shown in Table 1. Each participant was randomly assigned to Group A or Group B. Participants in each group were asked to answer several questions regarding three different scenarios. In Scenario 1, respondents in Group A were asked about their expectations of a three-star hotel stay at a cost of HK$1,500, while respondents in Group B were asked about their expectations of a three-star hotel stay with a lower cost of HK$800. In Scenario 2, respondents in each group answered questions about either a five-star hotel stay (Group A) or a three-star hotel stay (Group B) with the same cost of HK$1,700. In the last scenario, respondents in both groups were asked about a five-star hotel stay with different posted prices (Group A: HK$4,500; Group B: HK$2,000).

Table 1

In order to determine the posted prices in the scenarios, hotel room rates in Hong Kong were identified using TripAdvisor. TripAdvisor was selected because it compares room rates across several OTAs, including Agoda, Expedia, and Booking.com. We identified a total of 36 five-star hotels and 62 three-star hotels from TripAdvisor, and the average rate for a standard room across different OTAs was calculated for each hotel. Room rates in November were obtained and utilized for the scenarios, as November was a part of the shoulder season in Hong Kong, with total visitor arrivals close to the median from 2012 to 2014 (Hong Kong Tourism Board, 2015). It was found that standard room rates of five-star hotels ranged from HK$960 to HK$6,000 with an average of HK$2,989 for weekdays and from HK$1,350 to HK$6,228 with an average of HK$2,992 for weekends. For three-star hotels in Hong Kong, the room rates ranged from HK$487 to HK$2,200 for weekdays with an average of HK$797 and from HK$564 to HK$2,220 with an average of HK$1,019. It was also found there was an overlapping area in the price ranges of five- and three-star hotels. The overlapping area ranged from HK$960 to HK$2,200 for weekdays and from HK$1,350 to HK$2,220 for weekends.

Based on the hotel room rates as discussed above, the prices in the first quartile (five-star: HK$2,000; three-star: HK$800) and the third quartile (five-star: HK$4,500; three-star: HK$1,500) were used in Scenario 1 and Scenario 3. These two scenarios involved testing the differences in service expectations between a three-star hotel stay with a “higher than average” price and a “lower than average” price (Scenario 1) and the differences between a five-star hotel stay with the same higher/lower than average prices (Scenario 3). In Scenario 2, the price of HK$1,700 was the average price of the overlapping area between five- and three-star hotels in Hong Kong, which was used to test for service expectation differences for three-star and five-star

hotels with the same price.

Questionnaire Design

Experimental scenarios were designed based on hotel room rates in Hong Kong. To illicit respondents' direct perception of the price in Hong Kong dollars and expectations based on the price, as opposed to checking for exchange rates and converting hotel prices, Hong Kong residents were sampled in this study. Since the purpose of an experimental study is to generalize the theoretical effects rather than the statistical effects to wider populations (Highhouse, 2009), convenience sampling was used. An online questionnaire link was posted on one of the researchers' social media page, with a cover letter explaining the purpose as well as the anonymous nature of the study. Respondents were informed that the study was about online hotel booking, and then invited to complete a self-administered questionnaire on Qualtrics.com. The use of internet-based methods (i.e., social media recruitment and online questionnaire) allowed the researchers to reach potential respondents who were more internet-savvy and familiar with online hotel booking. Previous studies have also found that the results of online surveys were comparable with that of face-to-face, in-lab experiments and paper-and-pencil questionnaires (Casler, Bickel, & Hackett, 2013; Davidov & Depner, 2011). Data collection took place from February 6th, 2015 to February 24th, 2015. Respondents were randomly assigned to one of two experimental groups (Group A or Group B). According to the Central Limit Theorem, the sampling distribution will be approximately normally distributed when n is greater than 25 or 30 (Hogg & Tanis, 2006; Ott & Longnecker, 2001). To go beyond the minimum requirement of $n > 30$ for statistical inference, the target sample size for this study was set to be 60 cases per experiment group, and data collection ended after reaching a total sample size of 120.

The online survey had three parts. First, respondents were asked to answer several questions regarding their perceptions and preferences for three- and five-star hotels, including: (1) to what extent do you think the service provided by five-star hotels differ from three-star hotels on a 10-point scale (1=very little to 10=very much), and (2) on average how much would you pay for a standard room per night in: a) a five-star hotel in Hong Kong, and b) a three-star hotel in Hong Kong.

Second, the experimental scenarios were introduced. Respondents were asked to imagine that they were booking hotel rooms through Agoda Secret Deals, which provided the room rates and star ratings of the hotels but the actual names of the hotels were hidden (Appendix 1). Next, three scenarios with different prices and star ratings were presented. Respondents had to indicate their expectation of service quality according to the room rate and star rating in each scenario. The service expectations in each scenario were measured with fifteen 5-point items (1=very poor to 5=very good), including six items of general services, five items of room conditions, and four items of hotel facilities (please see Table 4 for all items). The general services category incorporated four dimensions of the SERVQUAL scale: reliability, responsiveness, assurance, and empathy (Parasuraman et al., 1991). As respondents needed to answer the scenario question three times, a simplified version of SERVQUAL items was used instead of the complete scale. In addition to SERVQUAL, previous studies on hotel service quality emphasized more on the physical product (Choi & Chu, 1999; Hua et al., 2009; Rauch et al., 2015). Therefore, the tangible dimension of hotel service was expanded into two categories: room conditions and hotel facilities, and items measuring these dimensions were identified based on previous studies (Choi & Chu, 1999; Hua et al., 2009). Finally, respondents were also asked to answer several demographic questions.

Data Analysis

The analysis of research data included four steps. The first step involved comparing respondents in two groups in terms of their demographic characteristics as well as their perceptions and preferences of three-star and five-star hotels. Since respondents were randomly assigned to one of two groups (Group A or B), respondents in these two groups were expected to be homogeneous. Subsequently, in order to investigate whether different posted prices presented by opaque booking websites would affect respondents' hotel service expectations of three-star and five-star hotels, two experimental scenarios were examined, including Scenario 1 (three-star hotel: HK$1,500 vs. HK$800) and Scenario 3 (five-star hotel: HK$4,500 vs. HK$2,000). In the next step, Scenario 2 was examined (five-star vs. three-star hotels with the same posted price of HK$1,700) to test whether star ratings presented by opaque booking websites would affect customers' service expectations of hotel rooms with the same price. In the final step of the analysis, we examined whether respondents' preference for guesthouses, three-, four-, or five-star hotels would affect how their service expectations of opaque hotel rooms of different prices.

RESULTS

Demographic Profile

Demographic information of the participants is shown in Table 2. Respondents in the two groups were homogenous in gender, age, and income. In terms of gender, nearly 60% of respondents were female in both groups (Group A: 59.3%; Group B: 61.7%). The result of chi-square test showed that two groups were homogenous in gender (χ^2=0.068; P>.05). The result of chi-square test also indicated that Group A and B were homogenous in age (χ^2=4.867; P>.05) as a majority of respondents in both groups were aged between 18 and 24 (Group A: 59.3%; Group

B: 61.7%). Regarding income, a majority of respondents in both groups had a monthly income of HK$10,000 – 29,999 (Group A: 43.1%; Group B: 45.8%) or HK$ 30,000 – 49,999 (Group A: 31.1%; Group B: 28.8%). The result of chi-square test revealed no difference between two groups (χ^2=1.774; P>.05).

Table 2

We further examined the two groups' perceptions of three- and five-star hotels. As shown in Table 3, respondents in both groups perceived that the service provided by five-star hotels differed greatly from three-star hotels as the average score for both groups were close to 8.0 on a 10-point scale. The result of Mann-Whitney test indicated no difference between two mean scores (Z-value: -.321; P>.05; Mean scores: Group A=7.81 & Group B=8.03). Moreover, the respondents in Group A were willing to pay on average HK$2,261.11 for a five-star hotel stay, which was only slightly higher than the average number of HK$2,209.48 for Group B. The difference between two groups was not significant (Z-value: -.361; P>.05). Respondents in Group B were willing to pay more for a three-star hotel stay (Group A: HK$885.71; Group B: HK$1,045.00), while the difference between two mean scores was not significant as well (Z-value: -.468; P>.05). In summary, results from Tables 2 and 3 indicated that a total of 120 respondents were successfully randomly assigned to two groups.

Table 3

Opaque Prices and Service Expectation

In order to investigate the influence of posted prices presented by opaque booking websites on customers' expected service quality, Scenario 1 and Scenario 3 were examined (Table 4). Scenario 1 involved testing the differences in service expectations of a three-star hotel stay with different posted prices: HK$1,500 vs. HK$800. The results of Mann-Whitney tests showed that respondents in Group A had significantly higher expectations in all six items of general services ($P<.01$), all five items of room conditions ($P<.05$), and all four items of hotel facilities ($P<.01$), which indicated that customers would have lower expectations of a three-star hotel room when they booked under the "discount price" of opaque products. Specifically, the item "Amenities" had the lowest mean difference, while the item "Anticipate guests' need" showed the highest mean difference. Results suggested that in the context of three-star hotels, customers lowered their expectation the most for "Anticipate guests' need" and lowered their expectation the least for "Amenities."

Scenario 3 was designed to further examine whether customers would have different expectations of a five-star hotel with different posted prices presented by opaque booking websites: HK$4,500 vs. HK$2,000. As expected, the results of Mann-Whitney tests showed that respondents in Group A had significantly higher expectations in all items of general services ($P<.01$), room conditions ($P<.01$), and hotel facilities ($P<.001$). Specifically, the item "Room cleanliness" showed the lowest mean difference, while the items "Mini bar" and "Room size" had the highest mean differences. Results suggested that for five-star hotels, customers were least likely to lower their expectation for "Room cleanliness" and more likely to lower their expectation for "Mini bar" and "Room size." As was the case of three-star hotels, these results indicate that customers have lower expectations for opaque products with lower prices. Thus,

Hypothesis 1 is supported.

Table 4

Within Group A and Group B, Wilcoxon Signed Ranks test was also conducted respectively to compare the same customer's expectation of service quality with regard to five-star hotels at different prices: HK$1,700 vs. HK$4,500 and three-star hotels at different prices: HK$800 vs. HK$1,700 (Table 5). Significant differences were observed in both groups, in all six items of general services (P<.001), all five items of room conditions (P<.001), and all four items of hotel facilities (P<.001). As predicted, the higher the hotel room rates, the higher customer's service expectations. The results of related sample comparison were consistent with that of the independent sample comparison in Scenarios 1 and 3, which showed that customers had lower expectations when the posted price was lower.

Table 5

Star Rating and Service Expectation

Scenario 2 was subsequently examined to investigate whether customers would have higher expectations of hotels with higher star ratings posted by opaque booking websites. In this scenario, respondents in Group A were asked to express their expectations about a five-star hotel stay of HK$1,700, while respondents in Group B were assigned to a three-star hotel stay of the same price. It is worth noting that the price of HK$1,700 was at the top end of three-star hotels

but the low end of five-star hotels in Hong Kong. As shown in Table 4, respondents in Group A had significantly higher expectations in eleven out of fifteen items ($P<.05$). In terms of general services, the mean scores of Group A were higher in all six items. However, the differences were significant in only three items, including: "Care about the customers" ($P<.05$), "Anticipate guests' need" ($P<.05$), and "Politeness" ($P<.01$), while the differences in the other three items were not significant at the 0.05 level.

The mean scores of Group A were also higher in all five items of room conditions. The results of Mann-Whitney tests showed that the differences were significant in four items ($P<.05$), while the difference between two groups in "Room decorations" was not significant ($P>.05$). The results of Mann-Whitney tests also revealed that respondents in Group A had significantly higher expectations in all four items of hotel facilities ($P<.05$). These results indicate that when the posted price is the same, customers would have higher service expectations for a hotel with a higher star rating. Thus, Hypothesis 2 is supported.

Due to opaque selling and other forms of discount pricing, three-star and five-star hotels may fall within the same price range. In general, customers' expectation for five-star hotels will be higher than that of lower star levels. Results of Scenario 2 also indicated that customers' expectation for a five-star hotel at its "discount price" was higher than that of a three-star hotel at its "regular/high" price, particularly in hotel facilities. In general services and room conditions, however, there were four items in which their expectations did not differ (i.e., willing to help, able to perform the promised services, convey trust and confidence in the service, and room decorations). These indicated the areas that customers might be willing to lower their expectations in exchange for a five-star hotel room at three-star prices.

Star Rating Preference and Service Expectation

Respondents were asked to indicate which type of accommodation they typically use when they travel. In the final step of data analysis, respondents were further categorized based on their preferences for five-, four-, three-star hotels and guesthouses, and their service expectations for three-star and five-star hotels of similar prices were subsequently compared. As shown in Table 6, the results of Kruskal-Wallis tests showed that respondents who typically stay at five-star hotels had significantly lower expectations of three-star hotel rooms (at HK$1,500-$1,700) than the other three groups, in general services, room conditions, and hotel facilities ($P<.01$). In addition, respondents who typically stay at guesthouses had significantly higher expectations of the "room conditions" of three-star hotels (at HK$1,500-$1,700) than those who tend to stay at three-star and four-star hotels ($P<.05$). For five-star hotel rooms (at HK$1,700-$2,000), respondents who preferred five-, four-, three-star hotels and guesthouses all had similarly high expectations. Those who typically stay at four-star hotels had the highest expectations of the four groups, in general services, room conditions, and hotel facilities. However, the differences between the four groups were not statistically significant ($P>.05$).

Table 6

Furthermore, the combined scenarios presented three-star and five-star hotels rooms at a similar price range (HK$1,500-$1,700 and HK$1,700-$2,000 respectively). Wilcoxon Signed Ranks tests were conducted to see if the four customer groups (i.e., typical five-star, four-star, three-star, and guesthouse customers) had different expectations of three-star versus five-star hotels of similar posted prices (Table 7). Results indicated that there was a huge gap in typical

five-star guests' expectations of three-star versus five-star hotels, in general services, room conditions, and hotel facilities, despite the similar prices (P<.001). Four-star and three-star guests also had significantly different expectations of three-star versus five-star hotels, although the gap was not as obvious. Lastly, for respondents who typically stay in guesthouses, there were no significant differences in their expectations of three-star versus five-star hotels of similar prices (P>.05).

Table 7

DISCUSSION

This study examined customers' expectations of opaque hotel rooms with different prices and star ratings. Findings revealed that customers were "reasonable" in their expectations. With the discount prices of opaque booking, expectations were significantly lower. Findings supported Fay's (2008) argument that opaque products could be perceived as "a lower-quality version of an existing product" (p. 60). Previous studies also identified that product quality was one of the consumers' main concerns with opaque purchases (Chen & Yuan, 2014; 2016; Pizam, 2011). As customers lowered their expectations of opaque hotel rooms, their zones of tolerance increased, and they were more likely to perceive the service they received as satisfactory (Yap & Sweeney, 2007; Zeithaml, Berry, & Paeasuraman, 1996). While respondents lowered their expectations for all hotel service quality items, the zone of tolerance seemed to vary for each item. For three-star hotels, "Amenities" might be considered a basic standard. Thus, respondents' expectation dropped the least, despite the price difference of HK$1,500 vs. HK$800. On the contrary, respondents might have a wider zone of tolerance for "Anticipate guests' need," and were more

willing to lower their expectation. In the case of five-star hotels, "Room cleanliness" might be considered a must, with a narrow zone of tolerance. For "Mini bar" and "Room size," however, respondents might be more flexible and more willing to lower their expectation when receiving a discount rate.

Moreover, comparing three-star and five-star opaque rooms of the same price (which was at the high end of the three-star rate and low end of the five-star rate), respondents had higher expectations of a five-star hotel stay than a three-star hotel stay. As hotel classification was commonly used as an indicator of quality (Fernández & Bedia, 2004; Núñez-Serrano, Turrión, & Velázquez, 2014), it was not surprising that customers had higher expectations for five-star hotels. However, this presented another challenge for five-star hotels using opaque channels. Despite the 30-50% discount of opaque selling, five-star opaque rooms were held to a higher standard compared to a regular or high-priced three-star hotel. Considering their respective operating costs and amounts of discount offered, five-star opaque rooms might bring in less revenue but should satisfy higher expectations.

Nonetheless, comparing three- and five-star rooms at the same price of HK$1,700, while respondents had higher expectations of five-star rooms in general, there were four items where the differences were not statistically significant: "Willing to help," "Perform the promised service," "Convey trust and confidence," and "Room decorations." Referring back to Scenario Pair 3, it was found that the price difference of HK$4,500 vs. HK$2,000 resulted in significantly different expectations for all items. As both prices were presented for five-star hotel rooms, overall the mean scores of respondents' expectations were quite high. Scenario Pair 2 (i.e., five-star and three-star at HK$1,700) further revealed the possibility that respondents may lower their expectation of five-star hotels to the three-star level—when presented with an attractive price

and specifically in certain aspects of hotel service quality. Jerath et al. (2010) pointed out that opaque products might be considered "damaged goods," using the example of opaque air tickets which could not be modified or exchanged. Chen and Yuan (2014) also discussed the "compromises" people make for opaque deals, such as accepting nonrefundable products. In addition to no re-booking and high cancellation fee, this study identified the compromises in service quality that customers may be willing to accept in exchange for discount rates, such as room décor and willingness to help.

Lastly, this study explored how different hotel market segments (i.e., typical five-star, four-star, three-star, and guesthouse guests) perceived opaque hotel rooms. Customers who usually stayed at five-star hotels exemplified the lowest expectation of three-star hotels, and thus the biggest gap in their expectations of three-star versus five-star hotel rooms of similar prices. For typical four- and three-star hotel users, their expectation of five-star rooms was also higher than that of three-star rooms, but the difference was not as considerable. In the case of guesthouse customers, the difference was not statistically significant. Chen and Yuan (2016) found that customers' value assessment of opaque hotel products would influence their purchase intention. Arguably, if customers' expectations were higher, their expected value of the product would be higher. The bigger the gap in one's expectations of a slightly more expensive five-star stay versus a three-star stay, the more likely one might choose the five-star, as it represented good "value for money." As such, five-star opaque rooms at three-star prices might be most attractive for typical five-star guests, whereas typical guesthouse users might not be as perceptive of the difference between three-star and five-star stays. Chen and Yuan's (2016) conceptualization of value assessment included "money" and "time and effort spent on booking." This study compared different hotel market segments in their opaque product expectations, which also shed

light on the differences in their assessment of opaque hotel rooms at various prices and star ratings.

CONCLUSION

Originating from the United States, opaque selling of tourism products has been around for nearly two decades. While its popularity can be seen from the increasing number of opaque selling channels, overall opaque purchases accounted for approximately 8-12% of internet bookings and 2-6% of all hotel reservations in USA and Canada (Anderson, 2011; Duran, 2015; Hospitality Sales and Marketing Association International (HSMAI), 2012; TravelClick, 2011, as cited in Lee & Jang, 2013). Previous studies have examined customer perceptions of the risks and unfairness of opaque selling (e.g., Chen & Yuan, 2014; 2016; Lee & Jang, 2013), which may account for the low demand of opaque hotel rooms. This study contributed to a deeper understanding of opaque selling from the consumer perspective. While previous studies focused more on the risks and benefits associated with the opaque booking process, this study examined consumers' expectation of the opaque product itself, and identified the compromises that hotel guests may be willing to endure in exchange for discount rates. By comparing customers' expectations in different price and star rating scenarios, this study also shed light on the dynamic relationship between price and expected quality, which was unique to opaque purchases. While price-quality tradeoffs are not new, previous studies defined price as the "sacrifice" that is needed to obtain quality as a "benefit" (Boksberger & Melsen, 2011; Lin, Sher, & Shih, 2005; Varki & Colgate, 2001; Zeithaml, 1988). On opaque booking websites, as price is part of the limited information presented and the hotel name and brand is unknown, the relationship between price and quality becomes reversed. The study of opaque booking and customers'

expectations offers a new perspective on existing price-quality relationships.

Study results have practical implications for the industry. First, findings suggested that opaque selling might be relatively easier for three-star hotels. Based on customer expectation, three-star hotels have room to adjust their opaque product quality if necessary. For five-star hotels using opaque distribution channels, it would be challenging to offer opaque rates yet keep up with customers' high expectations. Moreover, comparing three-star and five-star hotel rooms at various rates, findings revealed that customers were willing to lower their expectations when given discount rates, but their tolerance zones might vary with different service attributes. When offering their products on opaque websites, it is important for hotels to understand which aspects of service quality are the basic must-haves, and which aspects would guests be likely to have lower standards. This information will help hoteliers better manage customers' expectations and adjust the quality of their opaque product offerings. Lastly, opaque selling may be common in the Americas and Europe, but the practice is still quite new in Asia (Anderson & Xie, 2014). This study explored customers' perceptions of opaque booking from the perspective of younger, Hong Kong consumers. Comparing different accommodation segments, typical five-star customers were found to be the most perceptive of the difference between three- and five-star rooms of similar prices, which might make five-star opaque products more attractive to them. Although study findings may not be generalizable to the wider population in Hong Kong, findings offer a potential path to hotels that may wish to employ this pricing strategy in the Asian market.

This study had several limitations. First, the sample size was relative small. Although theoretical effects were identified, findings could not represent the wider population. Second, to keep the comparative scenarios manageable, only three- and five-star hotels and a few price categories were incorporated into the experiment. Future research may consider other types of

accommodation as well as a broader range of prices. Moreover, as opaque selling was relatively new in Asia at the time of data collection, respondents had little experience with opaque booking, and their expectations might differ from existing customers who were already familiar with opaque products and websites. Future research may compare prospective versus existing customers of opaque distribution channels to explore the difference in their perceptions and expectations of opaque hotel rooms.

REFERENCES

Akbaba, A. (2006). Measuring service quality in the hotel industry: A study in business hotel in Turkey. *International Journal of Hospitality Management, 25*(2), 170-192.

Anderson, C. (2011). Opaque selling in 2011. In *Hotel Yearbook 2011* (pp. 96-97). Lausanne: Ecole-Hoteliere Lausanne.

Anderson, C.K. (2009). Setting price on Priceline. *Interfaces, 39*(4), 307-315.

Anderson, C.K., & Xie, X. (2014). Pricing and market segmentation using opaque selling mechanisms. *European Journal of Operational Research, 233*(1), 263-272.

Bai, B., Law, R., & Wen, I. (2008). The impact of website quality on customer satisfaction and purchase intentions: Evidence from Chinese online visitors. *International Journal of Hospitality Management, 27*(3), 391-402.

Boksberger, P.E., & Melsen, L. (2011). Perceived value: A critical examination of definitions, concepts and measures for the service industry. *Journal of Services Marketing, 25*(3), 229-240.

Brassington, F., & Pettitt, S. (2007). *Essentials of marketing*. New York: Prentice Hall.

Brijball, S. (2003). The level of importance attached to price and quality in purchasing behavior. *Journal of Industrial Psychology, 29*(1), 93-99.

Campo, S., & Yague, M. (2008). Tourist loyalty to tour operator: Effects of price promotions and Tourist Effort. *Journal of Travel Research, 46*(3), 318-326.

Cannon, H.M., & Morgan, F.W. (1990). A strategic pricing framework. *Journal of Service Marketing, 4*(2), 19-30.

Casler, K., Bickel, L., & Hackett, E. (2013). Separate but equal? A comparison of participants and data gathered via Amazon's MTurk, social media, and face-to-face behavioral testing. *Computers in Human Behavior, 29*(6), 2156-2160.

Chen, C.-M., Yang, H.-W., Li, E.Y., & Liu, C.-C. (2015). How does hotel pricing influence guest satisfaction by the moderating influence of room occupancy? *International Journal of Hospitality Management, 49*, 136-138.

Chen, H.S., Jai, T.-M.(C.), & Yuan, J. (2017). Unveiling the role of information levels in consumers' evaluative process on opaque-selling hotel websites. *International Journal of Contemporary Hospitality Management, 29*(8), 2139-2158.

Chen, H.S., & Yuan, J.J. (2016). A journey to save on travel expenses: The intentional buying process of consumers on opaque-selling websites. *Journal of Hospitality Marketing & Management, 25*(7), 820-840.

Chen, H.-T., & Yuan, J. (2014). Blind savings or unforeseen costs? How consumers perceive the benefits and risks of using opaque travel selling websites. *Journal of Vacation Marketing, 20*(4), 309-322.

Chen, Z., & Dubinsky, A.J. (2003). A conceptual model of perceived customer value in e-commerce: A preliminary investigation. *Psychology and Marketing, 20*(4), 323-347.

Choi, T.Y., & Chu, K.S. (1999). Consumer perceptions of the quality of services in three hotel categories in Hong Kong. *Journal of Vacation Marketing, 5*(2), 176-189.

Courty, P., & Liu, W. (2012). Opaque selling in the hospitality industry: Hotwire's Hot Rates. Teaching case. University of Victoria.

Courty, P., & Liu, W. (2013). Opaque selling: Static or inter-temporal price discrimination? CEPR Discussion Paper No. DP9463. *Social Science Research Network*. Retrieved from http://ssrn.com/abstract=2262165

Davidov, E., & Depner, F. (2011). Testing for measurement equivalence of human values across online and paper-and-pencil surveys. *Quality and Quantity: International Journal of Methodology, 45*(2), 375-390.

Deneckere, R.J., & Mcafee, R.P. (1996). Damaged goods. *Journal of Economics and Management Strategy, 5*(2), 149-174.

Duran, J. (2015). Website, GDS and OTA: The right mix in distribution channel investments. *eHotelier*. Retrieved from http://ehotelier.com/insights/2015/06/16/website-gds-and-ota-the-right-mix-in-distribution-channel-investments/

Edwards, C.D. (1942). Types of differential pricing. *Journal of Marketing, 6*(4),156-167.

Fay, S. (2004). Partial-repeat-bidding in the Name-Your-Own-Price channel. *Marketing Science, 23*(3), 407-418.

Fay, S. (2008). Selling an opaque product through an intermediary: A case of disguising one's product. *Journal of Retailing, 84*(1), 59-75.

Fay, S., & Xie, J. (2008). Probabilistic goods: A creative way of selling products and services.

Marketing Science, 27(4), 674-690.

Fernández, M.C.L., & Bedia, A.M.S. (2004). Is the hotel classification system a good indicator of hotel quality? An application in Spain. *Tourism Management, 25*(6), 771-775.

Forsythe, S.L., Shannon, D., & Gardner, L.C. (2006). Development of a scale to measure the perceived benefits and risks of online shopping. *Journal of Interactive Marketing, 20*(2), 55-75.

Frochot, I., & Hughes, H. (2000). Histoqual: The development of a historic house assessment scale. *Tourism Management, 30*(2), 2-9.

Grewal, D., & Baker, J. (1994). Do retail store environmental factors affect consumers' price acceptability? An empirical examination. *International Journal of Research in Marketing, 11*(2), 107-115.

Guillet, B.D., & Law, R. (2010). Analyzing hotel star ratings on third-party distribution websites. *International Journal of Contemporary Hospitality Management, 22*(6), 797-813.

Gures, N., Arslan, S., & Tun, S.Y. (2014). Customer expectation, satisfaction and loyalty relationship in Turkish airline industry. *International Journal of Marketing Studies, 6*(1), 66-74.

Hann, I., & Terwiesch, C. (2003). Measuring the frictional costs of online transactions: The case of a Name-Your-Own-Price channel. *Management Science, 49*(11), 1565-1581.

Henderson, J., & Quandt, R. (1958). *Microeconomic theory: A mathematical approach*. New York: McGraw-Hill.

Highhouse, S. (2009). Designing experiments that generalize. *Organizational Research Methods, 12*(13), 554-566.

Hinz, O., Hann, I., & Spann, M. (2011). Price discrimination in e-commerce? An examination of dynamic pricing in name-your-own price market. *MIS Quarterly, 35*(1), 81-98.

Hogg, R.V., & Tanis, E.A. (2006). *Probability and statistical inference* (7th ed.). Upper Saddle River: Pearson.

Hong Kong Tourism Board. (2015). Research & Statistics. Retrieved from http://partnernet.hktb.com/en/research_statistics/index.html

Hospitality Sales & Marketing Association International (HSMAI). (2012). Distribution channel analysis: A guide for hotels. *The American Hotel & Lodging Association and STR Special Report*. Retrieved from http://www.hsmaieconnect.org/index.html

Hsieh, Y., Yuan, S., & Kuo, R. (2011). A PSO-based intelligent service dispatching mechanism for customer expectation management. *Expert Systems with Applications, 38*(10), 12128-12141.

Hua, W., Chan, A., & Mao, Z. (2009). Critical success factors and customer expectation in

budget hotel segment: A case study of China. *Journal of Quality Assurance in Hospitality & Tourism, 10*(1), 59-74.

Huang, T., & Yu, Y. (2014). Sell probabilistic goods? A behavioral explanation for opaque selling. *Marketing Science, 33*(5), 743-759.

Jerath, K., Netessine, S., & Veeraraghavan, S.K. (2010). Revenue management with strategic customers: Last-minute selling and opaque selling. *Management Science, 56*(3), 430-448.

Jiang, Y., (2007). Price discrimination with opaque products. *Journal of Revenue and Pricing Management, 6*(2), 118-134.

Joo, M., Mazumdar, T., & Raj, S.P. (2012). Bidding strategies and consumer savings in NYOP auctions. *Journal of Retailing, 88*(1), 180-188.

Jung, J.M., Sydnor, S., Lee, S.K., & Almanza, B. (2015). A conflict of choice: How consumers choose where to go for dinner. *International Journal of Hospitality Management, 45*, 88-98.

Kim, L.H., Qu, H., & Kim, D.J. (2009). A study of perceived risk and risk reduction of purchasing air-tickets online. *Journal of Travel and Tourism Marketing, 26*(3), 203-224.

Kim, M.-J., Chung, N., & Lee, C.-K. (2011). The effect of perceived trust on electronic commerce: Shopping online for tourism products and services in South Korea. *Tourism Management, 32*(2), 256-265.

Klie, L. (2013). Price shapes satisfaction: In a tight economy, companies must use VoC solutions for price sentiments. *Customer Relationship Management (CRM) Magazine, 17*(5), 21-22.

Leavitt, H.J. (1954). A note on some experimental findings about the meanings of price. *Journal of Business, 27*(3), 205-210.

Lee, M.-Y., Kim, Y.-K., & Fairhurst, A. (2009). Shopping value in online auctions: Their antecedents and outcomes. *Journal of Retailing and Consumer Services, 16*(1), 75-82.

Lee, S.J. (2013). Hospitality products and the consumer price-perceived quality heuristic: An empirical perspective. *Services Marketing Quarterly, 34*(3), 205-214.

Lee, S.K., & Jang, S.C.S. (2013). Is hiding fair? Exploring consumer resistance to unfairness in opaque pricing. *International Journal of Hospitality Management, 34*, 434-441.

Li, X., & Hitt, L.M. (2010). Price effects in online product reviews: An analytical model and empirical analysis. *MIS Quarterly, 34*(4), 809-831.

Lin, C.-H., Sher, P.J., & Shih, H.-Y. (2005). Past progress and future directions in conceptualizing customer perceived value. *International Journal of Service Industry Management, 16*(4), 318-336.

Liu, Z.Q., & Liu, J.C. (1993). Assessment of the hotel rating system in China. *Tourism Management, 14*(6), 440-452.

Marinković, V., Senić, V., Kocić, M., & Šapić, S. (2013). Investigating the impact of

SERVQUAL dimensions on customer satisfaction: The lessons learnt from Serbian travel agencies. *International Journal of Tourism Research, 15*(2), 184-196.

McConnell, J.D. (1968). The price-quality relationship in an experimental setting. *Journal of Marketing Research, 5*(3), 300-303.

McKinney, V., Yoon, K., & Zahedi, F.M. (2002). The measurement of web-customer satisfaction: An expectation and disconfirmation approach. *Information Systems Research, 13*(3), 296-315.

Monroe, K.B., & Bitta, A.J. (1978). Models for pricing decisions. *Journal of Marketing Research, 15*(3), 413-428.

Narangajavanna, Y., & Hu, B. (2008). The relationship between the hotel system, service quality improvement, and hotel performance changes: A canonical analysis of hotels in Thailand. *Journal of Quality Assurance in Hospitality and Tourism, 9*(1), 34-56.

Núñez-Serrano, J.A., Turrión, J., & Velázquez, F. J. (2014). Are stars a good indicator of hotel quality? Asymmetric information and regulatory heterogeneity in Spain. *Tourism Management, 42*, 77-87.

Ogonowska, M. (2012). Selling tourism products through the opaque channels. *e-Review of Tourism Research, 10*(3). Retrieved from http://ertr.tamu.edu/content/issues/volume-10-issue-1-3-2012/volume-10-issue-3-august-2012-enter-conference-short-paper-3/

Oliver, R.L. (2010). *Satisfaction: A behavioral perspective on the consumer*. Armonk: M.E. Sharpe.

Ott, R.L., & Longnecker, M. (2001). *An introduction to statistical methods and data analysis* (5th ed.). Pacific Grove: Duxbury.

Pakdila, F., & Aydin, O. (2007). Expectations and perceptions in airline services: An analysis using weighted SERVQUAL scores. *Journal of Air Transport Management, 13*(4), 229-237.

Parasuraman, A., Zeithaml, V.A., & Berry, L.L. (1991). Refinement and reassessment of the SERVQUAL scale. *Journal of retailing, 67*(4), 420-450.

Pine, R., & Phillips, P. (2005). Performance comparisons of hotels in China. *International Journal of Hospitality Management, 24*(1), 57-73.

Pizam, A. (2011). Opaque selling in the hotel industry: Is it good for everyone? *International Journal of Hospitality Management, 30*(3), 485-485.

Rauch, D.A., Collins, M.D., Nale, R.D., & Barr, P.B. (2015). Measuring service quality in mid-scale hotels. *International Journal of Contemporary Hospitality Management, 27*(1), 87-106.

Ryan, C., & Cliff, A. (1997). Do travel agencies measure up to customer expectation? An empirical investigation of travel agencies' service quality as measured by SERVQUAL. *Journal of Travel & Tourism Marketing, 6*(2), 1-31.

Scitovszky, T. (1994). Some consequences of the habit of judging quality by price. *Review of Economics Studies, 12*(2), 100-105.

Seth, N., Deshmukh, S.G., & Vrat, P. (2005). Service quality models: A review. *International Journal of Quality & Reliability Management, 22*(9), 913-949.

Shapiro, C., & Varian, H.R. (2000). Versioning: The smart way to sell information. *Harvard Business Review, 76*(6), 106-114.

Shapiro, D., & Shi, X. (2008). Market segmentation: The role of opaque travel agencies. *Journal of Economics & Management Strategy, 17*(4), 803-837.

Shapiro, D., & Zillante, A. (2009). Naming your own price mechanisms: revenue gain or drain? *Journal of Economic Behavior and Organization, 72*(2), 725-737.

Shareef, M.A, Archer, N., & Fong, W. (2013). Online buying behavior and perceived trustworthiness. *British Journal of Applied Science & Technology, 3*(4), 662-683.

Tappata, M.E., & Cossa, R. (2014). Price discrimination 2.0: Opaque bookings in the hotel industry. *Social Science Research Network*. Retrieved from: http://ssrn.com/abstract=2309622

Tsai, W.H., Hsu, W., & Chou, W.C. (2011). A gap analysis model for improving airport service quality. *Total Quality Management & Business Excellence, 22*(10), 1025-1040.

Varki, S., & Colgate, M. (2001). The role of price perceptions in an integrated model of behavioral intentions. *Journal of Service Research, 3*(3), 232-240.

Völckner, F., & Hofmann, J. (2007). The price-perceived quality relationship: A meta-analytic review and assessment of its determinants. *Marketing Letters, 18*(3), 181-196.

World Tourism Organization and International Hotel and Restaurant Association. (2004). The joint WTO and IH&RA study on hotel classification. Retrieved from http://www.ih-ra.com/marketplace/WTO_IHRA_Hotel_classification_study

Yap, K.B., & Sweeney, J.C. (2007). Zone-of-tolerance moderates the service quality-outcome relationship. *Journal of Services Marketing, 21*(2), 137-148.

Zeithaml, V.A. (1988). Consumer perceptions of price, quality, and value: A means-end model and synthesis of evidence. *Journal of Marketing, 52*(3), 2-22.

Zeithaml, V.A., Berry, L.L., & Paeasuraman, A. (1996). The behavioral consequences of service quality. *Journal of Marketing, 60*(2), 31-46.

Table 1. Experimental Scenarios

You found out that there is an "Agoda Secret Deals" promotion on Agoda, an online travel agency. The room rates and star levels are listed on the website but the brands and names of the hotels are hidden.

	Group A	**Group B**
Scenario Pair 1	Imagine that you booked a standard room in a **3-star** hotel, which costs **HK$1500** per night; you expect the hotel service quality to be:	Imagine that you booked a standard room in a **3-star** hotel, which costs **HK$800** per night; you expect the hotel service quality to be:
Scenario Pair 2	Imagine that you booked a standard room in a **5-star** hotel, which costs **HK$1700** per night; you expect the hotel service quality to be:	Imagine that you booked a standard room in a **3-star** hotel, which costs **HK$1700** per night; you expect the hotel service quality to be:
Scenario Pair 3	Imagine that you booked a standard room in a **5-star** hotel, which costs **HK$4500** per night; you expect the hotel service quality to be:	Imagine that you booked a standard room in a **5-star** hotel, which costs **HK$2000** per night; you expect the hotel service quality to be:

Table 2. Profile of Respondents

	Group A (N=60)	Group 2 (N=60)	Group Difference
Gender			
Male	24(40.7%)	23(38.3%)	χ^2=0.068
Female	35(59.3%)	37(61.7%)	P>.05
Age			
18-24	37(66.1%)	39(75.0%)	χ2=4.867
25-34	14(25.0%)	5(9.6%)	P>.05
35 or above	5(8.9%)	8(15.4%)	
Monthly income	60 (100%)	60 (100%)	
Below HK$9,999	5(8.6%)	2(3.4%)	χ2=1.774
HK$10,000-29,999	25(43.1%)	27(45.8%)	P>.05
HK$30,000-49,999	18(31.1%)	17(28.8%)	
HK$50,000 or above	10(17.2%)	13(22.0%)	

Table 3. Respondents' Perceptions of Three- and Five-star Hotels

	Group A (N=60)	Group 2 (N=60)	Group Difference
Hotel service difference (10-point scale)	7.81	8.03	Mann-Whitney U=1711.0 Z-value = -.321 P>.05
Willingness to pay for a 5-star hotel stay (HK$)	2261.11	2209.48	Mann-Whitney U=1504.5 Z-value = -.361 P>.05
Willingness to pay for a 3-star hotel stay (HK$)	885.71	1045.0	Mann-Whitney U=1596.5 Z-value = -.468 P>.05

Table 4. Results of Scenario 1, Scenario 3, and Scenario 2

Scenario	Scenario 1			Scenario 3			Scenario 2		
	Group A (n=60)	Group B (n=60)	P[a]	Group A (n=60)	Group B (n=60)	P	Group A (n=60)	Group B (n=60)	P
Hotel Service Expectations	3 Star, HK$1,500	3-star, HK$800		5-star, $4,500	5-star, $2,000		5 Star, $1,700	3-star, $1,700	
General Services	3.60	2.88	<.01	4.82	4.38	<.001	4.17	3.84	<.05
1. Willing to help	3.58	2.87	<.01	4.83	4.38	<.001	**4.08**	**3.88**	**>.05**
2. Able to perform the promised service	3.64	3.00	<.01	4.80	4.38	<.001	**4.19**	**3.95**	**>.05**
3. Care about the customers	3.36	2.77	<.01	4.81	4.40	<.001	4.17	3.78	<.05
4. Convey trust and confidence in the service	3.54	2.87	<.01	4.86	4.38	<.001	**4.12**	**3.83**	**>.05**
5. Anticipate guests' need	3.51	2.63	<.001	4.81	4.30	<.001	4.14	3.72	<.05
6. Politeness	3.79	3.17	<.01	4.83	4.42	<.01	4.33	3.88	<.01
Room Conditions	3.24	2.60	<.01	4.79	4.30	<.001	4.02	3.67	<.05
1. Room cleanliness	3.71	3.07	<.01	4.79	4.50	<.01	4.22	3.90	<.05
2. Room decorations	3.22	2.55	<.01	4.81	4.32	<.001	**3.98**	**3.72**	**>.05**
3. Room size	3.22	2.52	<.01	4.81	4.25	<.001	3.93	3.58	<.05
4. Amenities	3.10	2.60	<.05	4.81	4.28	<.001	4.02	3.65	<.05
5. Mini bar	2.93	2.28	<.01	4.72	4.13	<.001	3.95	3.50	<.05
Hotel Facilities	3.13	2.44	<.01	4.78	4.31	<.001	4.13	3.63	<.01
1. Swimming pool	2.90	2.20	<.01	4.73	4.23	<.001	4.05	3.45	<.01
2. Gymnasium	2.88	2.28	<.01	4.71	4.27	<.001	4.05	3.5	<.01
3. Lobby	3.39	2.63	<.001	4.83	4.4	<.001	4.27	3.78	<.01
4. Restaurants	3.36	2.63	<.001	4.85	4.35	<.001	4.15	3.77	<.01

[a] Sig. from Mann-Whitney test

Table 5. Results of Within-Group Comparisons

	Group A			Group B		
	Scenario 2 5-star, HK$1,700	Scenario 3 5-star, HK$4,500	P[a]	Scenario 1 3 Star, HK$800	Scenario 2 3 Star, HK$1,700	P
General Services	4.17	4.82	<.001	2.88	3.84	<.001
1. Willing to help	4.08	4.83	<.001	2.87	3.88	<.001
2. Able to perform the promised service	4.19	4.80	<.001	3.00	3.95	<.001
3. Care about the customers	4.17	4.81	<.001	2.77	3.78	<.001
4. Convey trust and confidence in the service	4.12	4.86	<.001	2.87	3.83	<.001
5. Anticipate guests' need	4.14	4.81	<.001	2.63	3.72	<.001
6. Politeness	4.33	4.83	<.001	3.17	3.88	<.001
Room conditions	4.02	4.79	<.001	2.60	3.67	<.001
1. Room cleanliness	4.22	4.79	<.001	3.07	3.90	<.001
2. Room decorations	3.98	4.81	<.001	2.55	3.72	<.001
3. Room size	3.93	4.81	<.001	2.52	3.58	<.001
4. Amenities	4.02	4.81	<.001	2.60	3.65	<.001
5. Mini bar	3.95	4.72	<.001	2.28	3.50	<.001
Hotel facilities	4.13	4.78	<.001	2.44	3.63	<.001
1. Swimming pool	4.05	4.73	<.001	2.20	3.45	<.001
2. Gymnasium	4.05	4.71	<.001	2.28	3.50	<.001
3. Lobby	4.27	4.83	<.001	2.63	3.78	<.001
4. Restaurants	4.15	4.85	<.001	2.63	3.77	<.001

[a] Sig. from Wilcoxon Signed Ranks test

Table 6. Hotel Expectation by Different Market Segments

	Which type of hotel do you usually stay at when you travel?				
	Luxury/5-star (n=17)	Upscale/4-star (n=37)	Midscale/3-star (n=39)	Budget/ Guesthouse (n=26)	P[a]
Expectation of 3-star hotels[b]					
General services	2.80a	3.93b	3.78b	3.95b	P<.01
Room conditions	2.60a	3.56b	3.41b	3.94c	P<.001
Hotel facilities	2.54a	3.42b	3.46b	3.75b	P<.01
Expectation of 5-star hotels[c]					
General services	4.22	4.41	4.22	4.22	P>.05
Room conditions	4.22	4.24	4.06	4.16	P>.05
Hotel facilities	4.18	4.36	4.19	4.12	P>.05

[a] Sig. from Kruskal-Wallis test
[b] room rate HK$1,500-$1,700
[c] room rate HK$1,700-$2,000

Table 7. Expectation of 3-star and 5-star Hotels at Similar Prices

	Which type of hotel do you usually stay at when you travel?					
	Luxury/5-star (n=17)			Upscale/4-star (n=37)		
Expectations	3-star[b]	5-star[c]	P[a]	3-star	5-star	P
General services	2.80	4.22	P<.001	3.93	4.41	P<.01
Room conditions	2.60	4.22	P<.001	3.56	4.24	P<.001
Hotel facilities	2.54	4.18	P<.001	3.42	4.36	P<.001
	Midscale/3-star (n=39)			Budget/Guesthouse (n=26)		
Expectations	3-star	5-star	P	3-star	5-star	P
General services	3.78	4.22	P<.05	3.95	4.22	P>.05
Room conditions	3.41	4.06	P<.01	3.94	4.16	P>.05
Hotel facilities	3.46	4.19	P<.01	3.75	4.12	P>.05

[a] Sig. from Wilcoxon Signed Ranks test
[b] room rate HK$1,500-$1,700
[c] room rate HK$1,700-$2,000