



# Does it pay to book direct?: Customers' perceptions of online channel distributors, price, and loyalty membership on brand dimensions

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## Abstract

To attract a transient market, hotels primarily use several distribution channels, such as the following: the hotel directly, central reservation offices, travel agents, and online booking systems. Yet, little attention has been paid to the revenue management implications with regard to the focus on distribution channels. The purpose of this study was to examine the effects of channels and prices on brand dimensions and to study the role of hotel loyalty membership in the relationships. A 2 (channel) × 2 (price) × 2 (loyalty membership) quasi-experiment was designed to test the research objectives. Multivariate Analysis of Variance was used to test significant differences. The findings provide implications for the industry.

**Keywords** Distribution channel · Channel management · Room rates · Brand trust · Brand affect · Brand loyalty · Loyalty membership · Online travel agency

## Introduction

The rapid developments of the Internet and advanced technology have drastically transformed the way hospitality organizations distribute and price their products and services (Gazzoli et al. 2008). Two decades ago, hotels primarily sold their rooms through their own sales force, sales representative, catalog/mail order, central reservation system, travel agencies, and several other channels (Choi and Kimes 2002). Confirming price and availability usually required making phone calls or visiting travel agency offices, impeding comparison shopping and further limiting travelers' access to information.

Not surprisingly, with the ubiquitous nature of the Internet, the number of customers who use the Internet to make travel arrangements has dramatically increased, and the distribution channel landscape continues to evolve. Digital travel sales totaled 213.29 billion United States (U.S.) dollars in 2020, with desktop sales amounting to 110.91 billion dollars and mobile sales amounting to 102.38 billion dollars. This figure is expected to reach 817.5 billion dollars by 2025 (Statista.com n.d.). These sales figures highlight the change in customer behavior and preferences for the online domain (Webb 2016) as the Internet allows customers to seek information about price, availability, amenities, and more via an instant search.

Like customers of products and services in other industries, customers in the hotel sector increasingly seek quick, easy, cheap ways to find, purchase, and receive products and services using the Internet (Tan and Dwyer 2014), and the share of reservations associated with the Internet is increasing. For instance, by late 2010, Internet bookings for the top 30 hotel brands reached 56.9% of the total brand Computer Reservation Systems (CRS) bookings, constituting a major share increase compared to the 37.6% level in 2006 (Tan and Dwyer 2014). Mobile technology also plays a significant role. In fact, 25% of leisure travelers made their booking on mobile devices in 2014, compared to only 15% the prior year (Webb 2016).

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With the growth in the use of the Internet for hotel bookings, online travel agencies (OTAs), that are third party booking websites, such as Expedia.com and Booking.com, have become positioned to offer travelers quick product and price comparisons across multiple suppliers (O'Connor 2001; Feinstein 2018; Rao and Smith 2006). OTAs have increasingly gained market share (Feinstein 2018), and according to the Hitwise data as of May 2017, online travel agencies accounted for 58.28% of market share, whereas hotel-direct bookings accounted for 41.72% (Schaal 2017). In terms of sales, Expedia is the largest travel agent in the world, followed by the Priceline Group, highlighting the threat OTAs pose to other distribution channels. For example, in May of 2017, U.S. travelers were asked which online portals they have used for booking hotel rooms, and 44% of the respondents stated that they had booked hotel rooms through Expedia (statista.com n.d.).

However, selling a room through channels can be costly to hotels. While the cost of each channel to hotels differs, distribution costs can sometimes be as high as 30% of hotel revenues (Dupler 2020; Green 2006; Feinstein 2018). Thus, hotels become more interested in reducing distribution costs using internet channels so that they can maximize gross profits (revenue minus distribution costs) rather than just the revenue from a single room sale (Choi and Kimes 2002). Furthermore, the burden on commissions is high enough that conflicts occurred between hotel brands and OTAs (Fox 2019). For example, hotels offered travelers different incentives such as packages and preferred booking rates to loyalty members and encouraged them to bypass the OTAs and book directly through the brands, such as the "Stop clicking around" campaign by Hilton and the "It pays to book direct" by Marriott (Feinstein 2018). As a result, Expedia.com penalized the branded hotels for offering lower rates to loyalty members than Expedia.com, claiming a violation of rate parity (Fox 2019).

While many customers are drawn to book a room via OTAs, the question that remains unanswered is whether customers are loyal to a certain booking channel. Customers may view a channel as a brand and exhibit brand loyalty toward a distribution channel when making room reservations. Possibly, customers are loyal to a certain price since price is the most important factor affecting purchase intentions (Liu and Zhang 2014). Perhaps, brand loyalty members act differently since members have knowledge that affects their information search, processing behaviors, and choices (Alba and Hutchinson 1987). However, in general, little attention has been paid to the revenue management implications regarding distribution channels (Choi and Kimes 2002; Ivanov and Zhechev 2012). Thus, the present study explored the effects of channels and prices on brand dimensions and investigated the role of brand loyalty membership in the relationships.

## Literature review

### Booking channels

Distribution or booking channels act as the intermediaries that bring hospitality and tourism products to customers. To attract a transient market, as noted previously, hotels primarily use several distribution channels such as having rooms booked through the hotel directly, brand websites, central reservation offices, travel agents, and online booking systems such as OTAs, offering multiple rates to their customers over each distribution channel (O'Connor 2001; Choi and Kimes 2002; Lim and Hall 2008). OTAs started being used in the U.S. in the mid-1990s are very popular today, and the segment of OTAs in the online travel reservation market has continued to increase (Feinstein 2018). While the use of OTAs is substantial, and has continued to increase in the U.S., their use is even higher in other countries such as China, where OTAs made up approximately 70% of the total online travel reservations made in the first half of 2019 (China Travel News 2019).

One of the major benefits that OTAs provide to hotels is the extra publicity that the use of OTAs creates, permitting a hotel to appeal to customers who might not have found the hotel via other distribution channels (Phocuswright 2021). Total marketing expenses from all brand hotels combined are not even close to 10% of the marketing expenses from OTAs. For example, Expedia spent \$5.3 billion on marketing in 2017, which is 52.7% of the entire group's revenue, whereas Marriott International spent \$155 million in the U.S. in 2017. Moreover, findings of a recent study about the use of OTAs indicated that ease of use, reliability in terms of providing benefits, sustaining a high level of benefits, realistic pricing, providing opportunities to compare prices, and the chance to benefit from promotional offers tended to boost customers' plans to use OTAs (Talwara et al. 2020). In addition, OTAs are the most frequently used channels by users of mobile devices (Phocuswright 2021).

Yet, although OTAs have provided customers with an easy means of accessing lodging products, their services do take a significant amount of money that could be profit for the hotels (Gazzoli et al. 2008). For example, OTAs have been shown to collect a 15% to 20% commission on the booking of a hotel room in the U.S. (Ye et al. 2019). Commission rates differ based on brand affiliations. For example, independent hotels pay Expedia commissions of 15–30% as opposed to large hotel brands that pay 10–15% (Schaal 2018). Therefore, some hotels have worked toward decreasing their reliance on OTAs and have tried to increase the number of direct bookings and, in recent years, several brands, including Hilton, Marriott, and Hyatt have spent



time, creativity, and dollars on marketing direct bookings and loyalty (Dupler 2020; Ye et al. 2019).

However, due to a lack of business travel during the COVID-19 pandemic, higher-end hotels found themselves selling a greater percentage of rooms to OTAs, such as the Expedia Group and Booking Holdings, to counteract the loss of corporate business. Still, this increase was more than counterbalanced by the tendency on the part of leisure travelers to book their rooms directly through hotel websites to make certain that they were provided with the best rates and cancellation opportunities (King 2021). Interestingly, during 2020, the percentage of U.S. online hotel bookings made via OTAs dropped 59% from 2019 (Phocuswright 2021). As some have noted, as the world begins to move past the pandemic, it will be important for hotels to remember to not return entirely to the distribution strategies that they used prior to the coronavirus pandemic, for doing so would return the distribution to OTAs, doing away with the creativity and effort that they put into increasing direct bookings (Borko et al. 2020; Dupler 2020). Therefore, channel management strategies make a difference and deserve attention in the literature.

## Channel management

While channel management is important in the lodging sector, it has not received much attention in the academic literature (Choi and Kimes 2002; Ivanov and Zhechev 2012). Channel management is vital in the practice of hotel revenue management. The structure of the intermediaries used by a hotel and the terms and conditions in the contracts with them significantly influence average daily rate (ADR), revenue per available room (RevPAR), and the entire revenue management (RM) system of the hotel (Ivanov and Zhechev 2012), and thus an exploration of channel management is worthy of further consideration.

When OTAs were first being developed and used as distribution channels, the majority of hotels were happy to cooperate with them to try to improve their occupancy rates and enhance their profits. Therefore, several research studies focused on the topic of how hotels collaborated with OTAs (e.g., Koide and Ishii 2005; Ling et al. 2015; Myung et al. 2009; Sierag et al. 2015; Van der Rest et al. 2016). For example, in one study, Myung et al. (2009) explored the impact of e-wholesalers on hotel distribution channels. They found that hotel operators perceived e-wholesalers as partners that helped them move inventories efficiently and with greater exposure. Overall, hotels were satisfied with the performance of and relationship with e-wholesalers. Still potential conflicts existed between hotels and e-wholesalers, such as regarding the control over room prices, the goals of hotel web-direct channels, and having similar customer bases.

Distribution or booking channels, including OTAs, promise incremental business by enlarging the potential customer base to those who would not otherwise have been attracted (Lim and Hall 2008). However, Green and Lomanno (2012) argued that the U.S. hotel market at the competitive set level operates as a near zero-sum game. Given limited hotel demand growth in the U.S. market (on average 1.6% for the last 20 years), they found that channel vendors help hotels shift share from one hotel to another or from one time period to another instead of creating substantial new industry level demand (Green and Lomanno 2012). Others claimed that an inverse relationship exists between customer usage of brand.com and the OTA channels, such that when the percentage of bookings through OTAs rose, there was a decline in the percentage booked through brand.com, lowering the hotels' yield (O'Connor and Piccoli 2003).

While OTAs may create customer value and offer easy access to searches for lodging information and bookings, hotels may suffer from a loss of control over their products and brands due to their dependence on OTAs (Kherrouf et al. 2018). Furthermore, the use of OTAs may prevent a hotel from building a relationship with a customer by reducing the importance of a hotel brand and enhancing the perceived importance of price, location, photos, and reviews (Chivandi et al. 2020). To stay competitive, hotels need to be able to foster direct sales on their own websites (Verot 2020). Yet online booking platforms have tried to inhibit hotels from offering their services at lower prices on their own websites by levying price parity clauses in their contracts with hotels (Ye et al. 2019). Price parity clauses could be called narrow if they just stop a hotel from offering lower prices on its own website or they can be considered wide if they do not allow a hotel to offer better conditions on their own or any other distribution channel such as via e-mail, telephone, or competing online booking platforms (Verot 2020).

The abundance of online booking platforms has been instrumental to the very rapid digitalization of the hotel industry and the continual increase in online bookings over traditional distribution channels (Verot 2020). Among the few studies on channel management, Schegg et al. (2013) examined distribution channels in Swiss hotels a few years ago and found that direct booking channels were the dominant sales tools, although their proportion in the distribution mix has been decreasing steadily in the last few years.

Customers who are brand loyal see the brand as having unique value that no other brand can match, because of increased trust in the brand's reliability or a more favorable effect when they use it (Chaudhuri and Holbrook 2001). Customers' brand trust, affect, purchase loyalty, and attitudinal loyalty (e.g., Chaudhuri and Holbrook 2001; Van der Heijden et al. 2003) may all come into play when they make hotel reservations. Research results suggest that while loyalty to a hotel brand still depends on the guest's positive



assessment of service experiences, customers' identification with a hotel brand impacts their assessment of these factors (So et al. 2013). Furthermore, a combination of distribution or booking channels, price, and brand membership may be associated with brand loyalty dimensions. Considering OTA bookings continue to grow at a faster rate than traditional distribution channels, customers may exhibit a stronger brand trust, affect, purchase loyalty, and attitudinal loyalty toward them than toward a brand website. Therefore, the first hypothesis in this study is the following:

**H1** Use of an OTA leads to stronger brand trust, affect, purchase loyalty, and attitudinal loyalty than a brand website.

## Price

A common question arises about the use of OTAs instead of booking directly through a hotel and that is: Is a rate offered through an online travel agency really cheaper? Empirical studies have shown inconsistent results. For example, Gazzoli et al. (2008) compared online room prices of global hotel chains across online distribution channels and their own brand websites, using 2,800 room rates on the internet. They found that 66% of U.S. hotels presented rate consistency, and the discrepancy is less than \$4 across all channels. In another study, indirect distribution channels (e.g., travelocity.com) offered lower room rates than direct distribution channels in Hong Kong (Law et al. 2007). Studying pricing consistency at smaller independent hotels in the United Kingdom (U.K.), Lim and Hall (2008) found that pricing across channels showed no comparable differences and earlier research found that no channel was consistently cheaper (Hanks et al. 2002).

Price alone may not be a distinguishing factor due to its dependence on other factors in the decision-making mix (Brucks et al. 2000). Recent research noted that when searching to book a hotel room online potential customers come across a variety of information sources such as customer reviews, price, and brand names and therefore, they studied the impact of those three factors on customers' views and booking intentions (Wen et al. 2021). They found that there were three-way interaction effects of the clues in customers' decision processes and that negative reviews had a dominating effect on hotel booking intention, and their analyses of the clues indicated that online reviews came first, followed by brand familiarity, and then price. They also noted that other variables could impact booking intentions, such as website security, the type of booking channel (the official hotel website or a third party), and room types, and should be studied in future research (Wen et al. 2021). With regard to hotels, different customers may perceive hotel rooms to be expensive or cheap depending upon their own financial situations and their decisions may be strongly

based on seasonality, such as peak or non-peak times of year, the flexibility of their travel schedules and thus, price is not a strong indicator of booking intention on its own (Akdeniz et al. 2013; Dodds et al. 1991).

Yet, price is considered to be a major extrinsic cue to a customer, as typically a higher priced product has been inferred to be a product of higher quality as customers make purchasing decisions that balance money and quality (Brucks et al. 2000). According to O'Connor (2001), customers know the cost of web distribution is lower than any other channels and expect savings to be passed on to them and to find the cheapest rates via electronic routes. Thus, customers perceive products purchased through the internet to be cheaper than those not purchased through the internet (Toh et al. 2011). This perception has led customers to associate rooms sold over the internet with lower prices (Lim and Hall 2008). Thus, customers may associate a favorable price with a stronger brand trust, affect, purchase loyalty, and attitudinal loyalty, leading to the following as second hypotheses in the study:

**H2** A lower price leads to stronger brand trust, affect, purchase loyalty, and attitudinal loyalty than a higher price.

## Loyalty programs

Loyalty programs have become essential for hotels to offer competitive and distinctive incentives to thrive in this competitive business environment. A loyalty program is defined as a "supplier's structural effort that provides customers with loyalty incentives such as points redeemable for prizes or discounts to increase customers' attitudinal and behavioral commitment to the supplier's market offering" (Sharp and Sharp 1997, p. 473). For most hotels, offering a hotel loyalty program is a crucial strategy for fostering customer loyalty, and competitive loyalty programs lead to success (Koo et al. 2020). Most hotel chains use membership programs because membership in reward programs is an important factor for many guests in their choice of hotel brand (Tanford et al. 2011).

Loyalty programs enable hotels to retain customers, reflected by their low switching intention to non-program brands and high purchase frequency (Sharp and Sharp 1997). Loyalty members show higher value and affective commitments toward the brand than non-members, and their membership affects price sensitivity (Tanford et al. 2011). In a study focusing on the factors impacting brand membership, researchers found that the employees' customer orientation, membership communication, and guest benefits connected with the hotel stay were the factors contributing to the loyalty program members' brand relationship quality (Lo et al. 2017). Lee et al. (2014) analyzed the effectiveness of customer loyalty programs at increasing the profitability



of hotel operators, such as occupancy rate, revenue, and operating margin. They found that investment in hotel loyalty programs has a positive impact on occupancy rates and profitability. Even in a service failure (e.g., a guest not being able to check in before 5 pm), Lee et al. (2021) found that members were more likely to suppress their desire for retaliation and perceived betrayal than non-members, supporting the “love-is-forgiving” effect. Therefore, based on the literature, it is expected that loyalty members will show stronger brand trust, affect, purchase loyalty, and attitudinal loyalty than non-members, leading to the following hypothesis:

**H3** Loyalty members show stronger brand trust, affect, purchase loyalty, and attitudinal loyalty than non-members.

Through a loyalty program, frequent travelers benefit from a combination of hard benefits such as a complimentary stay (e.g., reserve 3 nights and be enticed by a complimentary 4th night) and soft benefits such as customers' sense of status entitlement (e.g., gold elite) (Yi and Jeon 2003). There are times when these benefits are tied to a condition of a direct booking. For example, points are only honored to those who book a room through the hotel directly. This leads to loyalty program members bypassing other channels and using direct booking instead. In addition, loyalty members may have more knowledge of benefits associated with a loyalty program, and that type of customer knowledge affects information search, processing behaviors, and choices (Alba and Hutchinson 1987). Thus, it is expected that brand membership plays a moderating role in the relationships between channels and prices on brand dimensions, leading to the following hypothesis:

**H4** Brand membership plays a role in the relationship between channels and prices on brand trust, affect, purchase loyalty, and attitudinal loyalty.

## Methodology

### Experimental design

The purpose of this study was to explore (1) the effects of channels and prices on channel trust, channel affect, purchase loyalty, and attitudinal loyalty and (2) the moderating effect of brand loyalty membership on the relationships. To conduct the study, a 2 (channel: direct vs. online travel agency)  $\times$  2 (room rate: low vs. high)  $\times$  2 (loyalty membership: member vs. non-member) quasi-experiment was designed. In the scenario, several variables were controlled such as the destination, purpose of trip, hotel property, room type, length of stay, booking time, and party size. Scenarios were limited to leisure travelers because leisure travelers

have high price elasticities of demand, and most of them use the internet for bookings (Luo et al. 2005). Each participant was randomly assigned to one of the four conditions by being asked to view a screenshot of a website page, differing in the channels and prices, and then fill out a questionnaire. The following is a sample of the scenario (OTA  $\times$  higher rate):

Imagine you are planning a 3-day leisure travel with a friend to Daytona Beach next week. You need to reserve a standard room, and your budget for the room is \$129 per night. While searching online, you found this hotel room at \$139 on the Hilton website, and you like the rating, location, and amenities.

A sample of the stimuli used in the experiment is included in Appendix 2.

### Measures

Questions concerning brand trust, brand affect, purchase loyalty, and attitudinal loyalty were adopted from previous literature (e.g., Chaudhuri and Holbrook 2001; Jacoby and Chestnut 1978; Van der Heijden et al. 2003). Channel trust was measured as a three-item index with the following four statements: “I trust this website,” “This is an honest website,” and “This website is safe.” Channel affect was measured by five items such as “I feel good when I use this website,” “I feel comfortable when I use this website,” and “I feel familiar when I use this website.” Attitudinal loyalty was measured by three statements: “I am committed to this website,” “I start with this website whenever I search for travel arrangements online,” and “I would be willing to pay a higher price for this website over other websites.” Purchase loyalty was measured by four items such as “For this purchase, I would book the room from this website,” “I would consider booking from this website in the short term,” and “I would use this website the next time I book a room.” Each question was measured by using a 7-point Likert scale of agreement (1 = very strongly disagree, 7 = very strongly agree). The descriptive analysis is shown in Appendix 1.

In addition, the scenario realism was assessed by three items, “The scenario is believable to me,” “The scenario is realistic to me,” and “It is very easy to imagine myself as a viewer in the scenario” on a 7-point Likert scale. Respondents were also asked their loyalty membership status in terms of whether they were a member of any hotel brands such as Marriott International, Hilton, and InterContinental Hotels Group. They were allowed to choose more than one brand membership. Lastly, demographic information was acquired, such as age, gender, and education.

The scenarios and instruments were piloted by two industry experts, and they checked the design of the questionnaire



and the quality of measures employed. A pilot study ( $n = 22$ ) was then conducted to check manipulations and measurement reliability, and after editing the survey, the researchers proceeded with the data collection. Surveys were collected using Web-based panels from a marketing firm. A recommended minimum cell size was 20 observations per group (Hair et al. 2006), and because this study had 4 conditions, 80 observations were required for an adequate analysis. For data analysis, confirmation factor analysis was used to check measurement items, and multivariate analysis of variance was used to test significant differences.

## Results

### Sample

A sample of 327 individuals was gathered through recruitment by a marketing research firm. An invitation was limited to adults who reside in U.S. After 26 participants were excluded, because they did not complete the entire survey, 301 responses were used for data analysis. In terms of demographics, 54% of the respondents were male. With regard to their age, 41% of the participants were between 26 and 34 years old and 25% of them were between 35 and 44 years old. With regard to education, 77% of the participants had a college degree or higher. The annual household income levels of the respondents were as follows: 20% reported earnings of 29,999 U. S. dollars (USD) or less; 24% stated 30,000–49,999 USD; 56% reported 50,000 USD or more. On average, more than half of the respondents reported traveling 1 to 5 times per year (64%), 26% of the respondents traveled between 6 and 15 times per year, and 8% of the respondents traveled more than 16 times per year. 48% of the respondents were a member of at least one hotel brand such as Hilton (54% of the respondents that had any hotel brand membership had one for Hilton), Marriott International (42%), and/or Choice Hotels International (21%).

### Manipulation checks

To assess the experimental manipulations, respondents were asked to rate the elements in the scenario through four statements (e.g., I am looking at the hotel room on the Expedia website) on a 7-point scale (1 = strongly disagree, 7 = strongly agree). The manipulation check results showed significant differences in the expected directions: the OTA channel ( $M_{OTA} = 6.15$  vs.  $M_{brand} = 2.66$ ,  $t = 318.653$ ,  $p < 0.001$ ), the brand channel ( $M_{OTA} = 3.04$  vs.  $M_{brand} = 6.07$ ,  $t = 207.066$ ,  $p < 0.001$ ), the higher rate ( $M_{low} = 2.04$  vs.  $M_{high} = 5.69$ ,  $F = 430.917$ ,  $p < 0.001$ ), and lower rate ( $M_{low} = 4.68$  vs.  $M_{high} = 3.42$ ,  $F = 24.068$ ,  $p < 0.001$ ). Regarding scenario realism checks, study participants perceived the scenario as realistic ( $M = 5.88$ ), believable ( $M = 5.89$ ), and easy to imagine themselves as a viewer in the scenario ( $M = 5.98$ ). The results showed that the research design and measurement items were acceptable, and the manipulations were satisfactory.

### Scale reliability and validity

The scales were assessed for their reliability and validity indices using confirmatory factor analysis. The model fit indices of the overall measurement model were analyzed, consisting of all four latent constructs. As shown in Table 1, the 4-factor measurement model fits the data well:  $\chi^2 = 344.190$ ,  $df = 84$ ,  $p < 0.001$ ,  $RMSEA = 0.102$ ,  $CFI = 0.912$ ,  $IFI = 0.913$ ,  $NFI = 0.888$ . The obtained normed fit index (NFI), incremental fit index (IFI), and comparative fit index (CFI) values were greater than or close to 0.90. The root mean square error of approximation (RMSEA) was close to the acceptable cutoff point of 0.08 (Bagozzi and Yi 1988). Maximum shared variance (MSV) values were higher than AVE values, confirming discriminant validity (Bagozzi et al. 1991). The critical reliability of each latent construct exceeded the recommended threshold level of 0.70, ranging from 0.819 to 0.904 (Nunnally 1978). Average variance extracted (AVE) values were higher than the recommended cutoff of 0.50 (Fornell and Larcker 1981), confirming convergent validity.

**Table 1** Scales' reliability and validity indices

	CR	AVE	MSV	MaxR(H)	Trust	Purchase loyalty	Affect	Attitudinal loyalty
Channel trust	0.872	0.694	0.712	0.875	1			
Purchase loyalty	0.819	0.532	0.598	0.921	0.755	1		
Channel affect	0.904	0.654	0.712	0.955	0.844	0.773	1	
Attitudinal loyalty	0.847	0.651	0.426	0.966	0.510	0.603	0.653	1

$\chi^2 = 344.190$ ,  $df = 84$ ,  $p < 0.001$ ,  $RMSEA = 0.102$ ,  $CFI = 0.912$ ,  $IFI = .913$ ,  $NFI = 0.888$



### Hypothesis testing

The impacts of booking channels on the customers' behavioral intentions were examined using a multivariate analysis of variance. There were significant differences among the groups on a linear combination of the dependent variables: booking channels (Wilks' lambda=0.968,  $F=2.423$ ,  $p=0.048$ ), price (Wilks' lambda=0.891,  $F=8.839$ ,  $p<0.001$ ), and loyalty membership (Wilks' lambda=0.920,  $F=6.297$ ,  $p<0.001$ ), supporting H1–H3. Then the results for the dependent variables were considered separately. The only differences to reach statistical significance, using a Bonferroni adjusted alpha level of 0.013, were purchase loyalty scores for the price ( $M_{low}=5.48$  vs.  $M_{high}=5.07$ ,  $F=13.365$ ,  $p<0.001$ ) and attitudinal loyalty scores for the loyalty membership ( $M_{member}=4.70$  vs.  $M_{non-member}=4.06$ ,  $F=14.832$ ,  $p<0.001$ ).

Lastly, the interaction effect between the booking channels, price, and loyalty membership on behavioral intentions was significant (Wilks' lambda=0.953,  $F=3.605$ ,  $p=0.007$ ), supporting H4. When the results for the dependent variables were considered separately, significant differences existed for trust ( $F=12.131$ ,  $p=0.001$ ), affect ( $F=11.662$ ,  $p=0.001$ ), and purchase loyalty ( $F=9.510$ ,  $p=0.002$ ). As shown in Fig. 1, when participants saw a lower rate than their budget on brand.com (e.g., Hilton.com), loyalty members reported higher scores toward trust than non-members ( $M_{member}=5.74$  vs.  $M_{non-member}=5.50$ ). Furthermore, when they saw a lower rate on an OTA (e.g., Expedia.com), non-members were more likely to trust the OTA channel than members ( $M_{member}=5.19$  vs.  $M_{non-member}=6.17$ ).

As shown in Fig. 2, when participants saw a higher rate on an OTA, non-members' affective responses dropped

Fig. 1 Interaction effect of channel × price (low) × loyalty membership on trust

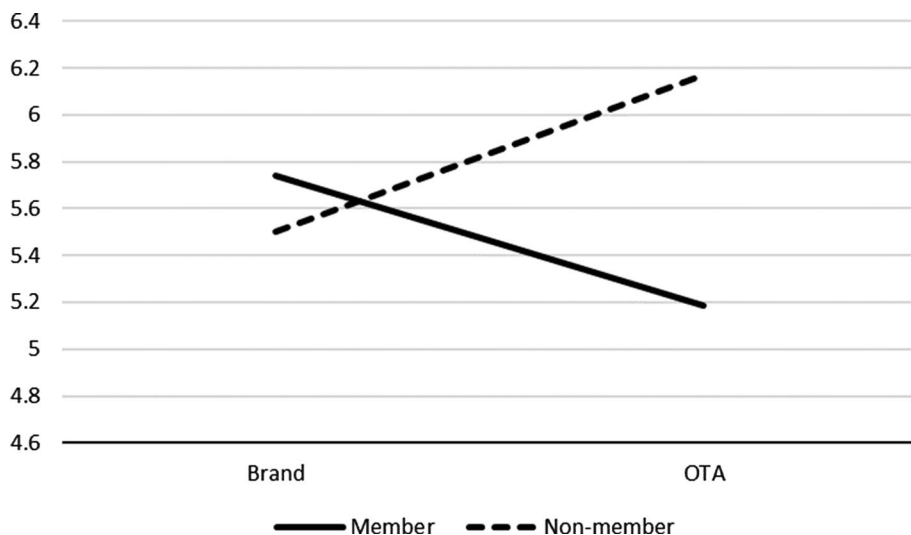
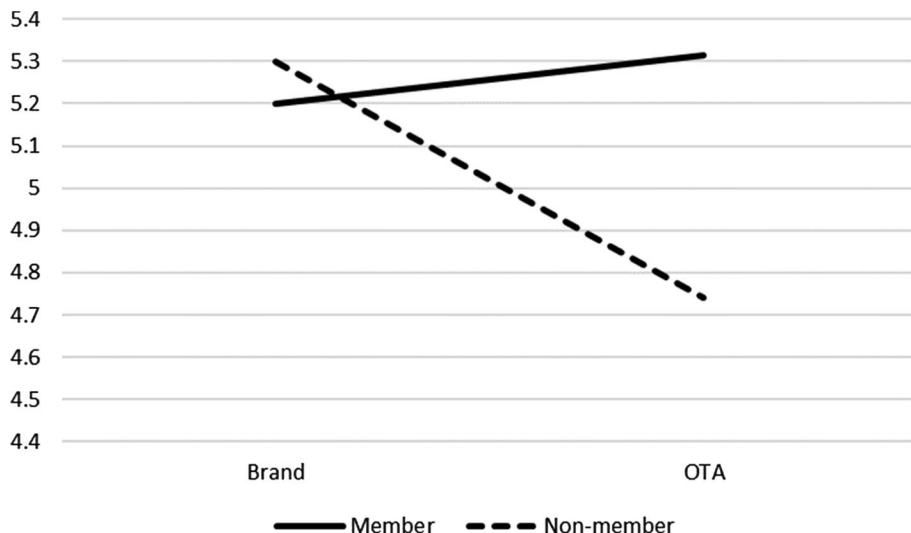


Fig. 2 Interaction effect of channel × price (high) × loyalty membership on affect



more drastically than members ( $M_{\text{member}} = 5.31$  vs.  $M_{\text{non-member}} = 4.74$ ). As shown in Fig. 3, when participants saw a lower rate than their budget on brand.com, brand members and non-members showed a similar tendency toward purchase loyalty ( $M_{\text{member}} = 5.54$  vs.  $M_{\text{non-member}} = 5.51$ ). However, when they saw a lower rate on an OTA, non-members tended to show a higher likelihood of making that purchase than members ( $M_{\text{member}} = 5.12$  vs.  $M_{\text{non-member}} = 5.77$ ).

## Discussion and implications

This research study contributes to the body of knowledge by addressing the effects of channels and prices on brand loyalty dimensions simultaneously because little attention has been paid to the revenue management implications of using various distribution channels (Choi and Kimes 2002). It is becoming increasingly complex for hoteliers to decide on which channels to use, as hotel managers often have little help in deciding which channels can best match their needs (O'Connor and Frew 2004). This study attempts to provide information needed by revenue managers, general managers, hotel owners, and brand franchisers to make decisions and formulate new strategies concerning customers' perceptions and their online distribution strategies.

In the findings, there was no significant difference in customer responses regarding trust, affect, purchase loyalty, and attitudinal loyalty by the booking channels. With these results, hotel brands should be alarmed because hotels have physical assets that are designed toward building brand and property loyalty, and yet customers did not see many differences on brand loyalty dimensions with regard to their booking method. Customers showed higher purchase loyalty scores for lower rates, confirming that price is an important factor for their responses, and indicating that price is perhaps

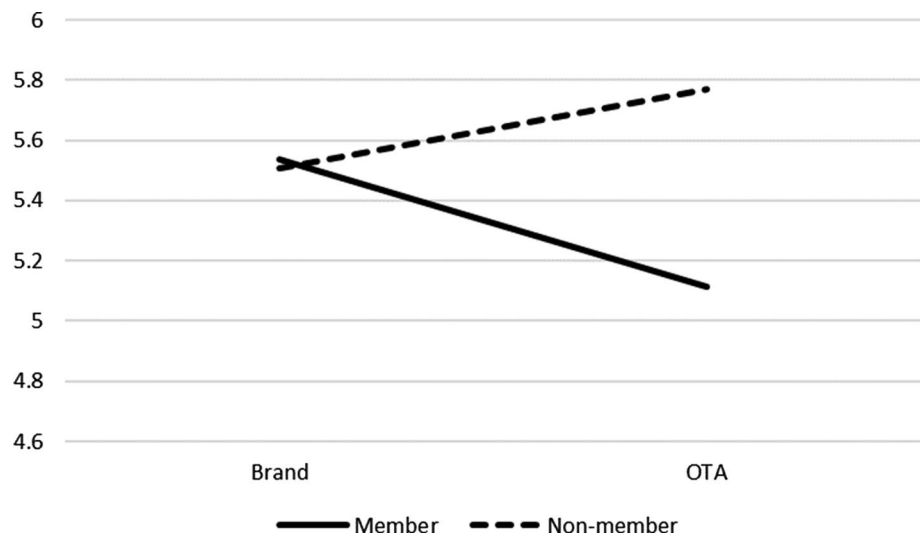
a more important cue than has been indicated in some previous studies (Wen et al. 2021). Moreover, loyalty members tended to have higher attitudinal loyalty than non-members. Hotel loyalty members are more committed to channels, start with certain websites whenever they search for travel arrangements online, and are even willing to pay a higher price for a certain website over other websites. This result is in line with the previous studies that loyalty members show higher commitments toward the brand than non-members (e.g., Tanford et al. 2011).

Loyalty membership played a moderating role in the relationships. When non-members saw a lower rate on an OTA, their responses on trust, affect, and purchase loyalty were higher than members. On the other hand, when brand members saw a lower rate on brand.com, their responses on trust, affect, and purchase loyalty were higher than non-members. This finding suggests that managers need to set different channel strategies by loyalty memberships and channels.

Moreover, when non-members saw a higher rate on an OTA, their responses on trust, affect, and purchase loyalty were significantly lower than members. Hence, it seems that non-members expect an OTA to offer cheaper rates. If their expectation is not met, their negative reactions are more apparent compared to those of loyalty members, and their affects are negatively influenced by its higher rates. Perhaps this explains why OTAs keep fighting for lowest rate guarantees. Alternatively, when non-members saw a lower rate on an OTA, their purchase loyalty highly increased, almost making them loyal to OTA channels.

Interestingly, loyalty members do not trust OTA channels even if a rate is lower on an OTA. Perhaps loyalty members know benefits of direct booking with hotel brands and obtain perks such as free Internet, free cancellation, and accumulated points because of their loyalty status. This could be an opportunity for hotel brands that focus on expanding

**Fig. 3** Interaction effect of channel  $\times$  price (low)  $\times$  loyalty membership on purchase loyalty





their brand membership and offer a variety of incentives to members. Although OTAs have the advantage of higher visibility, hotels have more influence on brand dimensions. To attract customers to book directly with the lodging property, hotels can offer additional benefits, such as free Wi-Fi, parking, and/or special event tickets. The total value of the loyalty program must exceed discounts offered by OTAs. Moreover, providing customers with tangible signals such as specific colors, designs, music, and/or words as symbols may help to create well-defined brand images to encourage brand loyalty. Thus, while OTAs concentrate on offering monetary value in the form of discounts, hotels can offer value to enhance the guest's experience. The perceived value of loyalty programs is essential in the formation of customer brand loyalty (Koo et al. 2020; Xie et al. 2014). As noted by the authors of previous research (Wen et al. 2021), when initiating sales promotions, hoteliers need to deliver a well-defined message that indicates that a lower price is connected to excellent value instead of poor quality. In addition, hoteliers could help their promotional strategies by effectively using social media and brand engagement. In that way, they can reduce the perceived risk of customers by providing information about the guest experience, including photos, videos, and other information about the hotel's environment and location.

### Conclusions, limitations, and suggestions for future research

In conclusion, although as previously noted, OTAs have the advantage of higher visibility, hotels can add value to the guest experience at their properties. In this way, the brand experience can be customized to align with a customer's individual wants and needs to encourage brand loyalty. As a suggestion, hoteliers could work to influence guests' brand identification to bring about positive customer evaluations of the hotel brand and thus, enhance their brand loyalty.

One of the limitations of the study was that a midscale hotel (a Hilton Garden Inn) was used in the scenario. In future studies, it would be interesting to see whether or not other hotel segments generate similar responses with regard to their channel management. In addition, other factors such as membership classification (Tanford et al. 2011) may affect the relationships and thus, should be investigated in future research. Although all reward program members exhibit value commitment, upper tier members are more likely to develop an emotional bond (Koo et al. 2020). It would be interesting to conduct a future study considering different tier members. Another limitation could be the sample, as a more diverse sample could potentially provide different results.

The future of hotels with regard to how the booking channel, price, and loyalty membership impact customer decisions will no doubt be interesting, especially given the difficult times caused by the coronavirus pandemic. This study was conducted prior to the coronavirus pandemic and more needs to be known about hotels with regard to booking channels, price, and loyalty membership as the world moves forward to a new normal. Around the world, declines in hotel occupancy losses were significant due to the pandemic, and hotels have only recovered slightly, and estimates are that a full recovery will take several years. In fact, estimates made by Smith Travel Research (STR) are that demand will not return to the levels seen prior to the pandemic until 2024 (Wang 2020). However, as hotels begin to rebuild their business strategies to move on beyond the pandemic booking channel, price, and loyalty membership issues will continue to be important.

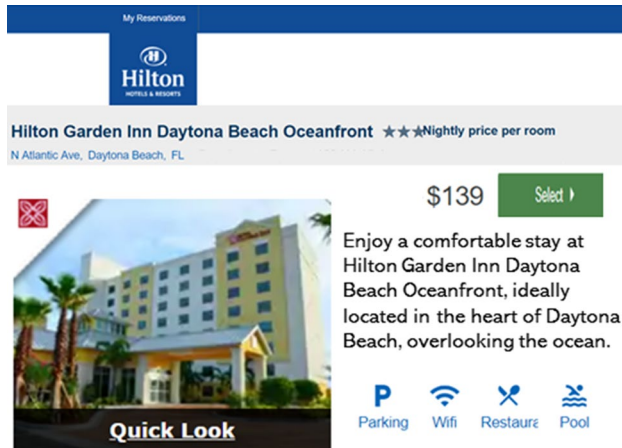
### Appendix 1: Descriptive analysis

	Mean	SD
<i>Channel trust</i> (e.g., Chaudhuri and Holbrook 2001; Van der Heijden et al. 2003)		
I trust this website	5.51	1.22
This is an honest website	5.49	1.13
This website is safe	5.54	1.10
<i>Channel affect</i> (e.g., Chaudhuri and Holbrook 2001)		
I feel good when I use this website	5.14	1.26
This website makes me happy	4.97	1.32
I feel secure when I use this website	5.41	1.18
I feel comfortable when I use this website	5.45	1.23
I feel familiar when I use this website	5.39	1.22
<i>Attitudinal loyalty</i> (e.g., Jacoby and Chestnut 1978; Chaudhuri and Holbrook 2001)		
I am committed to this website	4.50	1.57
I start with this website whenever I search for travel arrangements online	4.58	1.64
I would be willing to pay a higher price for this website over other websites	3.94	1.88
<i>Purchase loyalty</i> (e.g., Jacoby and Chestnut 1978; Chaudhuri and Holbrook 2001; Van der Heijden et al. 2003)		
For this purchase, I would book the room from this website	5.08	1.34
I would consider booking from this website in the short term	5.23	1.33
I would return to this website	5.48	1.24
I would use this website the next time I book a room	5.30	1.19

A 7-point Likert scale was used



## Appendix 2: A sample of stimuli (Hilton website vs. Expedia)



My Reservations

Hilton  
HOTELS & RESORTS

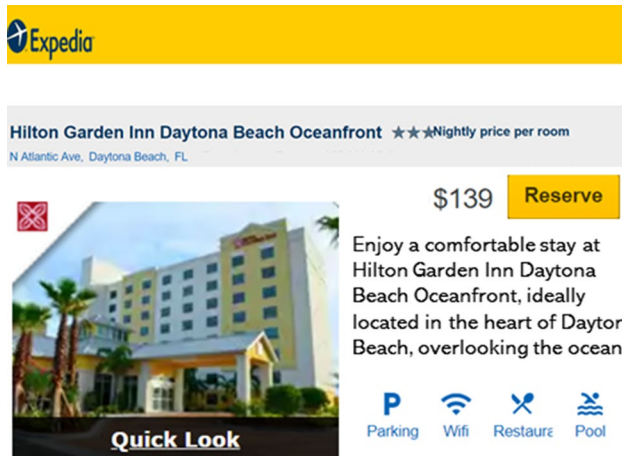
Hilton Garden Inn Daytona Beach Oceanfront ★★ ★Nightly price per room  
N Atlantic Ave., Daytona Beach, FL

\$139 Selected

Enjoy a comfortable stay at Hilton Garden Inn Daytona Beach Oceanfront, ideally located in the heart of Daytona Beach, overlooking the ocean.

**Quick Look**

Parking Wifi Restaura Pool



Expedia

Hilton Garden Inn Daytona Beach Oceanfront ★★ ★Nightly price per room  
N Atlantic Ave., Daytona Beach, FL

\$139 Reserve

Enjoy a comfortable stay at Hilton Garden Inn Daytona Beach Oceanfront, ideally located in the heart of Dayton Beach, overlooking the ocean.

**Quick Look**

Parking Wifi Restaura Pool

## References

- Alba, J.W., and J.W. Hutchinson. 1987. Dimensions of consumer expertise. *Journal of Consumer Research* 13 (4): 411–454.
- Akdeniz, B., R.J. Calantone, and C.M. Voorhees. 2013. Effectiveness of marketing cues on consumer perceptions of quality: The moderating roles of brand reputation and third-party information. *Psychology & Marketing* 30 (1): 76–89.
- Bagozzi, R.P., and Y. Yi. 1988. On the evaluation of structural equation models. *Journal of the Academy of Marketing Science* 16 (1): 74–94.
- Bagozzi, R.P., Y. Yi, and L.W. Phillips. 1991. Assessing construct validity in organizational research. *Administrative Science Quarterly* 36 (3): 421–458.
- Brucks, M., V.A. Zeithaml, and G. Naylor. 2000. Price and brand name as indicators of quality dimensions for consumer durables. *Journal of the Academy of Marketing Science* 28 (3): 359–374.
- Chaudhuri, A., and M.B. Holbrook. 2001. The chain of effects from brand trust and brand affect to brand performance: The role of brand loyalty. *Journal of Marketing* 65 (2): 81–93.
- Chivandi, A., O. Samuel, and M. Muchie. 2020. The effect of online travel agencies (OTA) on brand relationships in low and high-end hotels. *GeoJournal of Tourism and Geosites* 31 (3): 951–957. <https://doi.org/10.30892/gtg.31303-526>.
- China Travel News. 2019. China OTAs turn over 700 billion yuan in H1 2019, CtripAccounts for 55.7%. <https://www.chinatravelnews.com/article/131335>
- Choi, S., and S.E. Kimes. 2002. Electronic distribution channels' effect on hotel revenue management. *Cornell Hotel and Restaurant Administration Quarterly* 43 (3): 23–31.
- Dodds, W.B., K.B. Monroe, and D. Grewal. 1991. Effects of price, brand, and store information on buyers' product evaluations. *Journal of Marketing Research* 28 (3): 307–319.
- Dupler, N. 2020. Hotel distribution post-pandemic—How not to throw caution to the wind. *Phocuswire*. <https://www.phocuswire.com/hotel-distribution-post-covid-19>. Accessed 29 April 2021
- Feinstein, E. 2018. OTA's vs. direct hotel bookings: Which is the leading trend for 2018? *Traveldailynews.com*. <https://www.traveldailynews.com/post/otas-vs-direct-hotel-bookings-which-is-the-leading-trend-for-2018>
- Fornell, C., and D.F. Larcker. 1981. Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research* 18 (1): 39–50.
- Fox, L. 2019. Marriott and Expedia's battle over commissions could trigger industry-wide overhaul. *Phocuswire.com*. <https://www.phocuswire.com/marriott-expedia-commission-negotiations>
- Gazzoli, G., W.G. Kim, and R. Palakurthi. 2008. Online distribution strategies and competition: Are the global hotel companies getting it right? *International Journal of Contemporary Hospitality Management* 20 (4): 375–387.
- Green, C.E. 2006. *De-mystifying distribution*. HSMIA Foundation.
- Green, C.E., and M.V. Lomanno. 2012. *Distribution channel analysis: A guide for hotels*. McLean: HSMIA Foundation.
- Hair, J.F., W.C. Black, B.J. Babin, R.E. Anderson, and R.L. Tatham. 2006. *Multivariate data analysis*. Upper Saddle River: Pearson.
- Hanks, R.D., R.G. Cross, and R.P. Noland. 2002. Discounting in the hotel industry: A new approach. *Cornell Hotel and Restaurant Administration Quarterly* 43 (4): 94–103.
- Ivanov, S., and V. Zhechev. 2012. Hotel revenue management—A critical literature review. *Tourism: an International Interdisciplinary Journal* 60 (2): 175–197.
- Jacoby, J., R.W. Chestnut, and W.A. Fisher. 1978. A behavioral process approach to information acquisition in nondurable purchasing. *Journal of Marketing Research* 15 (4): 532–544.
- Kherrou, L., M.A. Rezzaz, and S. Hattab. 2018. Rehabilitation of geographical areas for a tourist development: The case of Batna region's mountains (Algeria). *GeoJournal of Tourism and Geosites* 22 (2): 455–469. <https://doi.org/10.30892/gtg.22215-302>.
- King, D. 2021. Hotels seize bigger share from OTAs during pandemic. *CoStar*. <https://www.costar.com/article/1508130067/hotels-seize-bigger-share-from-otas-during-pandemic>. Accessed 29 April 2021
- Koide, T., and H. Ishii. 2005. The hotel yield management with two types of room prices, overbooking and cancellations. *International Journal of Production Economics* 93 (1): 417–428.
- Koo, B., J. Yu, and H. Han. 2020. The role of loyalty programs in boosting hotel guest loyalty: Impact of switching barriers. *International Journal of Hospitality Management* 84. <https://doi.org/10.1016/j.ijhm.2019.102328>.
- Law, R., I. Chan, and C. Goh. 2007. Where to find the lowest hotel room rates on the internet? The case of Hong Kong. *International Journal of Contemporary Hospitality Management* 19 (6): 495–506.



- Lee, J.J., M.L. Capella, C.R. Taylor, and C.B. Gabler. 2014. The financial impact of loyalty programs in the hotel industry: A social exchange theory perspective. *Journal of Business Research* 67 (10): 2139–2146.
- Lee, J.S., J. Kim, J. Hwang, and Y.G. Cui. 2021. Does love become hate or forgiveness after a double deviation? The case of hotel loyalty program members. *Tourism Management*. <https://doi.org/10.1016/j.tourman.2020.104279>.
- Lim, W.M., and M.J. Hall. 2008. Pricing consistency across direct and indirect distribution channels in South West UK hotels. *Journal of Vacation Marketing* 14 (4): 331–344.
- Ling, L., Y. Dong, X. Guo, and L. Liang. 2015. Availability management of hotel rooms under cooperation with online travel agencies. *International Journal of Hospitality Management* 50 (10): 145–152.
- Liu, J.N., and E.Y. Zhang. 2014. An investigation of factors affecting customer selection of online hotel booking channels. *International Journal of Hospitality Management* 39 (1): 71–83.
- Lo, A.S., H.H. Im, Y. Chen, and H. Qu. 2017. Building brand relationship quality among hotel loyalty program members. *International Journal of Contemporary Hospitality Management* 29 (1): 458–488. <https://doi.org/10.1108/IJCHM-06-2015-0283>.
- Luo, M., R. Feng, and L.A. Cai. 2005. Information search behavior and tourist characteristics: The internet vis-à-vis other information sources. *Journal of Travel & Tourism Marketing* 17 (2–3): 15–25.
- Myung, E., L. Li, and B. Bai. 2009. Managing the distribution channel relationship with E-Wholesalers: Hotel operators' perspective. *Journal of Hospitality Marketing & Management* 18 (8): 811–828.
- Nunnally, J. 1978. *Psychometric methods*. New York: McGraw-Hill.
- O'Connor, P. 2001. Room rates on the internet – Is the web really cheaper? *Journal of Services Research* 1 (1): 57–64.
- O'Connor, P., and A. Frew. 2004. An evaluation methodology for hotel electronic channels of distribution. *International Journal of Hospitality Management* 2 (2): 179–199.
- O'Connor, P., and G. Piccoli. 2003. "Marketing hotels using global distribution systems" revisited. *Cornell Hotel and Restaurant Administration Quarterly* 44 (5–6): 105–114.
- Phocuswright. 2021. 5 things to know about the U.S. OTA market in 1 minute <https://www.phocuswright.com/Travel-Research/Research-Updates/2021/5-things-to-know-about-the-us-ota-market-in-1-minute>. Accessed 29 April 29.
- Rao, B.V., and B.C. Smith. 2006. Decision support in online travel retailing. *Journal of Revenue and Pricing Management* 5 (1): 72–80.
- Schaal, D.S. 2017. Hotel and online travel agency direct booking winners and losers in 5 charts. Skift.com. <https://skift.com/2017/07/10/hotel-and-online-travel-agency-direct-booking-winners-and-losers-in-5-charts/>
- Schaal, D.S. 2018. Expedia acknowledges a new balance of power with hotels in direct booking challenge. Skift.com. <https://skift.com/2018/02/08/expedia-and-hotels-have-reached-a-new-equilibrium-in-direct-booking-campaigns/>
- Schegg, R., B. Stangl, M. Fux, and A. Inversini. 2013. Distribution channels and management in the Swiss hotel sector. In *Information and communication technologies in tourism 2013*, ed. L. Cantoni and Z. Xiang, 554–565. Berlin: Springer.
- Sharp, B., and A. Sharp. 1997. Loyalty programs and their impact on repeat-purchase loyalty patterns. *International Journal of Research in Marketing* 14 (5): 473–486.
- Sierag, D.D., G.M. Koole, R.D. van der Mei, J.I. van der Rest, and B. Zwart. 2015. Revenue management under customer choice behaviour with cancellations and overbooking. *European Journal of Operational Research* 246 (1): 170–185.
- So, K., C. King, B.A. Sparks, and Y. Wang. 2013. The influence of customer brand identification on hotel brand evaluation and loyalty development. *International Journal of Hospitality Management* 34 (1): 31–41. <https://doi.org/10.1016/j.ijhm.2013.02.002>.
- Statista.com. n.d. Online travel market - statistics & facts. <https://www.statista.com/topics/2704/online-travel-market/>
- Talwara, S., A. Dhirb, P. Kaurd, and M. Mäntymäkkic. 2020. Why do people purchase from online travel agencies (OTAs)? A consumption values perspective. *International Journal of Hospitality Management* 88 (1): 1–11. <https://doi.org/10.1016/j.ijhm.2020.102534>.
- Tan, J., and L. Dwyer. 2014. Managing distribution channel conflict in the hotel industry. *International Journal of Marketing & Business Communication*, 3(1).
- Tanford, S., C. Raab, and Y.S. Kim. 2011. The influence of reward program membership and commitment on hotel loyalty. *Journal of Hospitality & Tourism Research* 35 (3): 279–307.
- Toh, R.S., P. Raven, and F. DeKay. 2011. Selling rooms: Hotels vs. third-party websites. *Cornell Hospitality Quarterly* 52 (2): 181–189.
- Van der Rest, J.I., P. Cordella, G. Loosschilder, and Z. Schwartz. 2016. Connecting search marketing to hotel revenue management: Conjoint analysis as a methodology to evaluate the optimal online travel agency commission fee. *Service Science* 8 (2): 169–183. <https://doi.org/10.1287/serv.2016.0137>.
- Van der Heijden, H., T. Verhagen, and M. Creemers. 2003. Understanding online purchase intentions: Contributions from technology and trust perspectives. *European Journal of Information Systems* 12 (1): 41–48.
- Verot, B. 2020. What is rate parity and why is it important? *Hotel-Minder* <https://hotelminder.com/what-is-rate-parity-and-why-is-it-important/>
- Wang, H. 2020. Travel industry turned upside down: Insights, analysis, and actions for executives: New *Skift-McKinsey Research*. *Skift Research*. <https://skift.com/2020/09/22/new-skift-research-the-travel-industry-upside-down-insights-analysis-and-actions-for-travel-executives/>
- Webb, T. 2016. From travel agents to OTAs: How the evolution of consumer booking behavior has affected revenue management. *Journal of Revenue and Pricing Management* 15 (3): 276–282.
- Wen, J., Z. Lin, X. Liu, S.H. Xiao, and Y. Li. 2021. The interaction effects of online reviews, brand and price on consumer hotel booking decision making. *Journal of Travel Research* 60 (4): 846–859. <https://doi.org/10.1177/0047287520912330>.
- Xie, L.K., and C.C. Chen. 2014. Hotel loyalty programs: How valuable is valuable enough? *International Journal of Contemporary Hospitality Management* 26 (1): 107–129.
- Ye, F., H. Yan, and Y. Wu. 2019. Optimal online channel strategies for a hotel considering direct booking. *International Transactions in Operational Research*. 26 (3): 968–998.
- Yi, Y., and H. Jeon. 2003. Effects of loyalty programs on value perception, program loyalty, and brand loyalty. *Journal of the Academy of Marketing Science* 31 (3): 229–240.

