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## **PRE-PRINT**

### **ABSTRACT**

The present research provides insights into the complex landscape of online advertising to support tourism organizations in formulating their marketing strategies. People often use search engines and online travel agencies in a very similar way. The aim and sequence of actions that consumers perform on Google or Booking.com are exactly the same, but for the potential sellers each channel presents different costs and attributes. In the Google model, firms make bids and pay on a cost-per-click basis. In the Booking.com model, firms pay commissions based on the value of services sold. Under budget constraints, one of the first problems a company may encounter is determining the resource allocation to different channels. Hence, an analytical model is introduced to compare the profits generated from online search engines and online travel agencies. Assuming a trade-off between different online marketing channels, the study suggests the maximum cost per click that a tourism organization should pay to benefit from search engine marketing as much as from online travel agencies. The analytical model is tested empirically by using data from two hotels and managerial implications are discussed.

**KEYWORDS:** cost per click, online travel agencies, search engine marketing, web marketing

## INTRODUCTION

The Internet has profoundly changed the landscape of tourism marketing, influencing consumer behaviours and business models. It has become one of the major sources to search travel-related information and a major venue for purchasing (Li, Pan, Zhang, & Smith, 2009). Travel and holidays are among the most expensive items that households purchase regularly online (Buhalis & Law, 2008). Travellers increasingly access the Internet not only to obtain information prior to their vacations, but also to book their travel and post their reviews about the products they have used. Tourism was predicted to be one of the most rapidly expanding industries online, and it was widely reported as the prime industry that, after the disintermediation of the traditional distribution channels, was expected to be re-intermediated, with new electronic distribution channels and intermediaries entering the online market to add value and benefits for both businesses and end-users (Buhalis & Licata, 2002).

Actually, the present scenario in tourism and hospitality is characterized by a complex range of different platforms, intermediaries, online search engines that ease the retrieval of travel information and empower customers to make an informed purchase decision (Law, Leung, Lo, Leung, & Fong, 2015). In a dynamically evolving distribution landscape, the effective use of online channels hinges on a fuller understanding of such channels in the tourism industry (Kracht & Wang, 2010). With the increasing number of intermediaries and platforms on the Web, tourism and hospitality enterprises, including hotels, are challenged to find an efficient and selective channel strategy. An effective strategy may be to optimize the mix of distribution channels by prioritizing the most promising online channels and, hence, by choosing among competing options (Beritelli & Schegg, 2016). Even though a multiple online channel strategy can seem to be the more effective approach for maximizing the volume of online bookings (Huang, Chen, & Wu, 2009), the strategy of choosing only the most promising online channel may work best to contribute to profit maximization, at least when there is a limited amount of time, resources and information. Hence, managers are confronted with the problem of assessing the profitability of different channels of digital marketing.

Digital marketing, sometimes termed as hypermedia marketing, online marketing or e-marketing (Dholakia, 2005), is changing the way in which firms compete in the market to increase sales and

profitability (Spenser & Giles, 2001). Numerous companies exploit digital advertising, including online and mobile advertising, to increase their revenues throughout the Internet and e-commerce (Chen, Cox, Uluagac, & Copeland, 2016; Constantinides, 2002; Rutz, Bucklin, & Sonnier, 2012; Za & Tricahyadinata, 2017). E-commerce allows companies to electronically sell goods and services with no barriers of time or distance. With the use of the Internet and e-commerce, online advertisement has become an important source of both information and revenue (Nakamura & Abe, 2005). Online advertising is a growing field, including “not only evolved banner, pop-up, and e-mail ads but also search marketing, pay-per-click, pay-per-action, rich media, contextual advertising, geotargeting, behavioral targeting, social marketing, video advertising, and user-generated online video” (Boone, Secci, & Gallant, 2010, p. 242).

Therefore, tourism firms have numerous options for promoting their offer and attracting new visitors, by using search engines and social network sites in addition to online travel agencies (OTAs). Despite the variety of different online marketing strategies, there is a scant literature on how firms should choose the best web marketing channels to increase their profitability under budget constraints. “Researchers have investigated the use of an e-commerce channel in conjunction with traditional channels, but less research has been dedicated to choosing which e-commerce channel to use” (Ow & Wood, 2011, p. 203). One reason for the scarcity of studies is the difficulty for researchers to obtain advertiser-level data, because firms are usually reluctant to share economic information (Ghose & Yang, 2009).

On the contrary, there are numerous studies investigating search engine performances. Several papers have analysed the equilibria of auction game used by Google and other search engines (Edelman & Ostrovsky, 2007; Edelman, Ostrovsky, & Schwarz, 2007; Varian, 2007). The main concern of those studies was suggesting improvements in the auction design from the perspective of search engines, even though bidders too should benefit from those improvements. Moreover, there are other studies that focused on the perspective of advertisers by examining different digital channels in isolation to help organizations select OTAs (e.g., Liao, Hsu, & Chang, 2019; Stangl, Inversini, & Schegg, 2016) or search engines (e.g., Ali & Gul, 2016; Chan, Wu, & Xie, 2011). Instead, there is scanty literature comparing the potential of search engines and OTAs from the business perspective to

support the decision-making process of small- and medium-sized enterprises (SMEs), which are challenged by a variety of alternative online channels.

Unlike previous studies, the purpose of this research is to use a comparative approach, by providing an analysis of the importance of search engines and OTAs as alternative generators of online sales within the tourism sector, with a special focus on the hospitality sector. In particular, in a digital context constituted by a handful of dominant players, namely by Google as regards search engines and by Booking.com as regards OTAs, this study was guided by the following research question: How should a hotel select the more convenient digital market? In this way, the article aims at filling the gap in the literature by examining how tourism firms can manage the choice of online channels properly when Google AdWords and Booking.com are the two options to be considered.

Booking.com was selected as representative of OTAs because it is the world leader in online hotel reservations (Garrigos-Simon, Galdon, & Sanz-Blas, 2017; Martin-Fuentes & Mellinas, 2018), while Google was selected as representative of search engines because it is still the biggest search engine for tourism products (Dergiades, Mavragani, & Pan, 2018; Murphy & Kielgast, 2008). The model focuses on Google or Booking.com because people often use search engines and online travel agencies in a very similar way. The aim and sequence of actions that consumers perform on Google or Booking.com are the same, but for the potential sellers each channel presents different costs and attributes. Moreover, the need for testing drove the scope of the analysis, leading to exclude other platforms (e.g., TripAdvisor, Facebook) that, although promising tools to alter pre-purchase and post-purchase decision-making processes (Gruss, Kim, & Abrahams, 2020) and to increase customer engagement (Kim, Yoo, & Yang, 2020), are not yet widely in use to sell tourism products.

Therefore, this paper makes a twofold contribution. First, it provides an overview of the role and mechanism of search engines and OTAs in the tourism industry. Second, the research offers insights and recommendations to help SMEs exploit these particular online channels in the most profitable way. In this regard, the research proposes an analytical model to compare the profits generated from two of the most important online channels in the tourism industry. To the best of our knowledge, the present study is the first to address the problem of comparing the profitability of different online

advertising channels by developing a theoretical reference model with practical relevance. The model is then tested by using data from two hotels, and managerial implications are discussed.

## **SEARCH ENGINE MARKETING AND GOOGLE ADWORDS**

### **Organic and Sponsored Search Results**

In travel distribution, power has shifted to search engines, which are increasingly difficult intermediaries to bypass (Kracht & Wang, 2010). Thanks to their capability to index and organize large amount of information, search engines are powerful tools in representing the tourism domain (Xiang, Wöber, & Fesenmaier, 2008). Especially in the tourism industry, strongly influenced by information technologies, online visibility is considered a competitive advantage for capturing new customers (Buhalis, 2003). In today's world, online visibility depends on search engine marketing (SEM), which influences the probability that the company's website will be displayed when customers type specific keywords into the search engine bar. The SEM is "a form of Web marketing that seeks to promote websites by increasing their visibility in search engine result pages (SERPs)" (Kritzinger & Weideman, 2013, p. 276). The visibility of a website is directly related to its ranking on SERPs (Pan, Xiang, Law, & Fesenmaier, 2011).

Search engine marketing (SEM) has two arms: search engine optimization (SEO), based on organic links, and paid search advertising, based on sponsored links (Rutz & Bucklin, 2016). "The organic links are ranked according to their relevance to the search query, whereas the sponsored links are allocated to advertisers through a competitive auction" (Berman & Katona, 2013, p. 644). To better illustrate the mechanism of SEM from the advertisers' perspective, the present study focuses on the online advertising platform of Google AdWords because it is a market leader in online advertising (Moran & Hunt, 2009), but it is also the most expensive option (Zhang, Ristenpart, Savage, & Voelker, 2011).

As most search engines do, Google provides both organic search results (also known as natural results) and sponsored search results (also known as paid placements), each with a different visualization on search engine result page (SERP). Therefore, when a consumer enters a given search

query, the search engine Google displays both organic and sponsored search results, with organic results sorted according to their relevance to the query. Organic results are the best pages found by Google in response to the searcher's query, because they are not influenced by advertisers' bids (Moran & Hunt, 2009). For this reason, searchers access and trust organic links more than the sponsored links, even though there is a positive interdependence between organic and paid search results (Yang & Ghose, 2010). For instance, empirical evidence has shown that the presence of a company's link in the organic search list can reduce the number of consumers visiting the sponsored search advertiser's website, but it increases the likelihood of purchase by the customers who visit the sponsored website (Agarwal, Hosanagar, & Smith, 2015).

Unlike the organic list, the sponsored search results are sorted according to the AdWords market, which works as a large auction where advertisers select a keyword or a key-phrase, i.e. a set of two or more keywords, to link a searcher's query to the advertisement, by making bids for the selected keywords, after having specified their maximum daily budget (Jansen, 2011). Broadly, in paid search an advertiser has to make four different decisions: which keywords to select; how much to bid for each keyword; how to write the ad text; how to design the landing page (Rutz & Bucklin, 2007).

The Google AdWords platform computes and releases promptly a set of statistics, including the number of auctions, the number of impressions, the number of clicks, the total cost of clicks, the total revenue from clicks, and the conversion rate, to help the advertisers tune their bids on an hourly basis (Lee, Zioło, Han, & Powell, 2017). An impression is a passive exposure to text advertisement of a company, whereas a click is an active opt-in leading to further information exposure at the landing page of an advertiser (Rutz & Bucklin, 2011). The concept of conversion is not unique and can cover the request of a quotation, the download of a document, the subscription to a newsletter or the completion of a purchase. In the last case, the conversion rate denotes the probability that a click on advertiser's ad will convert into a transaction or acquisition.

In general, there are different options for advertisement arrangements. An advertiser can choose among the following charging schemes (Chen et al., 2016):

- “cost/pay per mille or thousand impressions” (CPM/PPM), if the advertiser pays for a bulk of ad impressions, i.e. when his ad is displayed to users;

- “cost/pay per click” (CPC/PPC), if the advertiser pays for each click on his ad, so that, in the absence of clicks, the company does not incur any costs;
- “cost/pay per lead” (CPL/PPL), if the advertiser pays only for an interested lead (i.e., a qualified sign-up, such as a “like” in the case of Facebook);
- “cost/pay per action or acquisition” (CPA/PPA), if the advertiser pays only when a user performs a pre-defined action, such as filling out a form, calling a phone number featured in the website, or purchasing a product or a service.

Among the four pricing models (i.e., CPM, CPC, CPL, and CPA), the CPC option is the most prevalent method in digital advertising (Agarwal, Athey, & Yang, 2009). According to the CPC scheme, an advertiser is charged only when someone clicks on his ad. This means that a company is not charged if its ad is seen but not clicked. The CPC is determined according to the mechanism of the “generalized second price” (GSP) auction (Edelman et al., 2007). The name of GPS arises from the payment due to search engines offering multiple ad positions. More specifically, an advertiser in a certain position pays according to the price stated by the second highest bidder (Agarwal, Hosanagar, & Smith, 2011).

However, the second-auction method is not a pure method, because it is supplemented by the quality score, which reflects the past performances and other ad related differences (Varian, 2007). Therefore, in the so-called “enhanced auction”, the ad position is determined by the advertiser’s bid amount and by the quality score (Rutz et al., 2012). Because of the inclusion of the quality score, an advertiser does not have full control over the actual rank, even if he places the highest bid in the auction (Haans, Raassens, & van Hout, 2013). More specifically, “at Google and Yahoo, text advertisements are placed in position rank order as a function of click-through rates, landing page quality scores, and bid amounts. This means that competitive bidding is not the sole determinant” (Rutz & Bucklin, 2011, p. 93). According to the enhanced auction, the first position should be assigned to the ad that, given the number of clicks and the CPC, is expected to generate highest revenues for Google. Indeed, under the CPC scheme, a search engine company earns revenue from advertised businesses when it displays their ads in response to a relevant search query, if the users actually click on the ads.

According to Mangold (2018), a successful campaign requires a close relationship among three elements: the keyword that a company is targeting; the ad variation that the company presents; the landing page to which the company directs the searcher. If there is a congruity among these three elements, good results are likely obtained from the ad campaign. Additionally, the quality of a firm's site is very important to enhance the persuasive effectiveness of advertisement messages. Improvements in the site quality, brand awareness and user-friendly interface result in an increase in organic and sponsored clicks (Baye, De los Santos, & Wildenbeest, 2016). Moreover, the website layout and content are both important for an effective SEM strategy (Paraskevas, Katsogridakis, Law, & Buhalis, 2011). The credibility of information source has also a huge influence on marketing effectiveness.

Despite its imperfect algorithm, Google is regarded as a reliable search engine by the majority of users who tend to highly trust its ranking system. This means that most users rarely go beyond the first result page (Jansen & Spink, 2006; Paraskevas et al., 2011) or the first two result pages (Pan et al., 2007). The higher the rank of a website, the greater the likelihood of being clicked by users. Studies applying eye-tracking techniques have found that the way users devote attention to search results is influenced by the type of task and the quality of the ads, but also by the sequence in which the ads are presented (Pan et al., 2007). Since users make their decisions about what to click mainly according to the position of the first ranked websites, advertisers strive for optimizing their position in the sponsored list, because the position of the ad is one of the factors that drive the conversion rate.

### **The Conversion Rate**

The average conversion rate in paid search can be very low or even equal to zero, if the keywords chosen by an advertiser did not generate any sales over a certain period of time. While some keywords are widely searched and typed by users, many others generate very little traffic. The literature suggests avoiding keywords that are very specific or general terms, while the inclusion of a brand name and the right length of the header (measured in number of words or number of characters) could increase both click-through and conversion rates (Rutz & Bucklin, 2016). Generic keywords (e.g., hotels Los



Angeles) have apparently higher costs for an advertiser than branded keywords (e.g., Hilton Los Angeles), but generic search terms may generate a spillover effect on a subsequent branded search that could lead to purchase behaviours (Rutz & Bucklin, 2011).

Since the position of an ad is the result of an auction, higher positions, which cost more, should be justified only if they generate higher returns for advertisers (Narayanan & Kalyanam, 2015). With higher bids, a firm's campaign is likely to receive more traffic and better performances. Accordingly, many advertisers are "engaged in intense bidding wars to win the top slots in the list of sponsored results" (Agarwal et al., 2011, p. 1057). As just mentioned, some ads are more attractive to a user and they are more effective in converting an ad viewer into a consumer of the product/service that is advertised. From the advertiser's perspective, it is better to make bids on queries that are more likely to be submitted by users because, otherwise, his advertisement will never be displayed. As advertisers compete for the more popular keywords, the auction price for those keywords is higher. In other words, the more the keyword chosen by the advertiser is required by other advertisers, the more expensive the click is. If the CPC increases, the profit from sales lowers.

As an alternative strategy, advertisers could pay their attention to less popular and cheap keywords, defined "long tail" keywords, some of which could generate clicks and conversions. However, evidence has shown that the results of 100 top-performing keywords (which generate the vast majority of searches, clicks and conversions) are fairly stable in comparison to changes in the total number of keywords. It is also true that the set of the top 100 keywords might vary over time so that new keywords, or keywords that did not perform very well in the past, may become important to drive the success in search engine marketing (Skiera, Eckert, & Hinz, 2010). Therefore, although the long-tail keywords generally show a lower profitability, the discovery of "diamonds in the rough", however rare it may be, cannot be excluded *a priori* (Rutz & Bucklin, 2016). Moreover, less popular keywords, i.e. keywords with lower search volumes, should not be underestimated, because the number of clicks per search and the share of sponsored clicks can be larger for less popular keywords than for more popular keywords (Jerath, Ma, & Park, 2014).

Although the rank is strategically important to advertisers, a debated question is how a higher ads position might affect changes in the conversion rate. According to most studies, the rank of the

sponsored link impacts on click-through and conversion rates (Brooks, 2004; Ghose & Yang, 2009). Therefore, in most cases, the probability that a click will convert to a sale depends on the position of the ad on the SERP. However, there is some evidence to support that the position effects are weaker on the weekends (than on the weekdays) and that they are significant only at relatively lower positions, while the top five positions do not display position effects (Narayanan & Kalyanam, 2015). Similar results are reported by another study focusing on the top seven positions and showing an increase in conversion rates at lower positions (Agarwal et al., 2011). According to this study, consumers with a higher purchase intent tend to visit and buy from websites placed in lower positions more frequently than those with a lower purchase intent. Therefore, placing advertisements at lower positions could be an effective way to attract buying consumers without paying more money for the top positions and by engaging in search engine optimization. “An SEM strategy requires optimization as well as a comprehensive PPC strategy that will lead to increased visibility and conversion” (Paraskevas et al., 2011, p. 207).

## **ONLINE TRAVEL AGENCIES AND BOOKING.COM**

### **The Competitive Landscape**

In recent years, search engines have become an important source for consumers who use the Internet to access travel products (Xiang & Pan, 2011). However, compared to other industries, general search engines like Google are less able to cover a complex knowledge domain like tourism (Wöber, 2006). According to a recent report investigating traffic sources by content categories and topics, for 14 of the 23 analysed categories over 40% of their external traffic comes from Google search (Parse.ly, 2018). Among the categories with a lower traffic there are travel articles, which are accessed by visitors mainly through Facebook (43%), Google (34%) and other external sources (23%). A possible explanation is that travellers often use search engines only as “jumping boards” to access other types of more interactive platforms, including destination marketing organizations’ websites, transaction-oriented portals, and virtual community sites (Xiang et al., 2008). Travellers use search engines to learn about potential hotels, particularly in the early phase of the search, to then turn to

other sources such as brand websites, OTAs, and TripAdvisor (Verma, Stock, & McCarthy, 2012). In the tourism industry, “the re-intermediation phenomenon, through online travel agencies, is gaining strength in the distribution of tourism products” (Smithson, Devece, & Lapiedra, 2011, p. 1577).

The OTAs (e.g., Bookings.com, Hotels.com, Expedia.com, Agoda.com, Travelocity.com and Orbitz.com) are third-party distributors’ websites that may use either an agent model or a merchant model. The essential difference is that under the agent model the tourism firm collects the price from the guest and remits the commission to the OTA, whereas under the merchant model the OTA collects the price from the guest and then remits it to the tourism firm (Toh, Raven, & DeKay, 2011). Moreover, OTAs differ in the variety of travel products offered, which may include rental cars, flights, hotels, sightseeing tours, restaurants, theme parks, and travel packages (Cardoso & Lange, 2007), even though the present research focuses on hotel distribution, where the growth of OTAs is a global phenomenon (Huang Yin, Goh, & Law, 2019), with Booking.com as “Europe’s leading online hotel reservations agency by room nights sold” (Fernández-Barcala, González-Díaz & Prieto-Rodríguez, 2010, p. 352).

OTAs, which account for the majority of reservations made in the tourism industry especially in the United States (Park & Jang, 2018), have gained a strong foothold in the distribution marketplace and, for reasons of price transparency, they are often preferred over hotel direct booking sites. “Consumers like the transparency of OTAs, being able to compare multiple hotels on one site, along with the ability to read reviews of guests that have stayed at the various properties” (Stringham & Gerdes, 2019, p. 477). Therefore, the OTAs provide the guests with a reliable channel to track hoteliers’ past service quality (Yacouel & Fleischer, 2012) and the hoteliers with an efficient and convenient way to increase their room occupancy and yield (Toh et al., 2011). The Google Trends data confirm the popular use of OTAs such as Booking.com in recent years (Hunold, Kesler, Laitenberger, & Schlütter, 2018). The success of online travel agencies is partly explained by their role as specialized information providers that offer free tourism information on the Internet to support potential guests or attract new visitors. As argued by Fernández et al. (2010), there are two types of Internet information providers, namely the *advice websites*, which do not sell services and obtain their

income via advertising on the basis of the number of accesses, and the *sale websites*, which also sell the assessed services and obtain their income via fees.

However, because of a conflict of interest, the *sale websites*, including the OTAs such as Booking.com, could be less reliable than the *advice websites*, such as TripAdvisor.com. The *sale websites* are incentivized to display higher quality assessments to induce consumers to buy online, thus improving their sales and incomes, at least in the short run. Conversely, the *advice websites* do not sell services, thus they do not profit from cheating potential customers. Since the compensation of the *advice websites* depends on the number of visitors, the perverse incentive to selectively hide information that could discourage guests disappears or is reduced. Such a difference in ranking is well documented by Fernández-Barcala et al. (2010), who found that the rating of hotels in *sale websites* was higher than in *advice websites* by 7% on average, but the difference in quality assessment rose to about 9% for five-star hotels, from which *sale websites* gain more benefits, because the earned fee is proportional to the sale value. At the same time, the authors observed that the interest in preserving the value of the reputational capital is what prevents opportunism by Internet information providers.

It should be noticed that, by the time Fernández-Barcala et al. (2010) wrote their paper, TripAdvisor revenues were obtained not from booking transactions but from the number of customers looking for a hotel room, using a marketing platform of pay per click. However, to better monetize its huge traffic, TripAdvisor has constantly changed its business model over the recent years. In 2012, TripAdvisor started to implement metasearch functionalities and, in 2014, it launched the Instant Booking functionality, by which consumers can complete a transaction on its site, without being redirected to external sites. Instant Booking allows TripAdvisor to earn commissions from hotel partners, like OTAs do, with standard commissions ranging from 12% to 15% (Rossini, 2015).

Therefore, although search engines and sales platforms are highly differentiated, many online intermediaries have evolved dynamically over time. Also other players, as TripAdvisor did, have changed their positioning and scope. Social media sites have increased their marketing influence in tourism industry (Leung, Bai, & Stahura, 2015; Virginia Phelan, Chen, & Haney, 2013). The advent of a new generation of mobile applications enables users to book all travel products in an easier way (Pilepić, Šimunić, & Car, 2015). Facebook, which provides also paid advertising options (Buhalis &

Matloka, 2013), has introduced the innovative functions of instant booking and direct booking through messages to enable customers to make reservations directly through its platform, thus avoiding unnecessary transitions to other websites (Buhalis & Mamalakis, 2015). The competitive landscape is further characterized by intertwined network structures. For instance, Booking.com submits high bids to Google to be listed in the first search page of its AdWords. Moreover, TripAdvisor ratings and the number of reviews have a positive relationship with the average revenues of online booking transactions (Torres, Singh, & Robertson-Ring, 2015).

### **Hotels' Dependency on OTAs**

Owing to intense competition, OTAs strive to deliver travel-related products and services that differentiate themselves from their competitors, by developing strategies to heed attributes (e.g., security, ease of use, finding low fares, booking flexibility, sorting option, offer of loyalty schemes), which are very important to affect customers' purchase decisions (Kim, Kim, & Han, 2007). OTAs compete not only with each other, but also with hotels that try to attract customers to use hotel booking services and avoid dependency on online intermediaries and high commission rates (Chang, Hsu, & Lan, 2019; Ling, Guo & Yang, 2014). The commission fee paid by hotels to OTAs usually varies from 15% to 30%, depending on the features of the hotel and the geographic region, but the commission rates are in general higher for the smaller hotels, which have less negotiating power (Toh et al., 2011). To reduce their dependency, hotels have to challenge "OTAs ability to create customer value and to deliver convenience in terms of information search and booking" (Stangl et al., 2016, p. 89).

The strength of online booking platforms like Booking.com is related to guest reviews and explicit votes that are submitted by customers after their stay at any accommodation booked through those platforms. Indeed, most customers increasingly choose hotels based on online reviews, which are the counterpart of Word-of-Mouth (WoM) in the cyber world (Öğüt & Onur Taş, 2012). "Research has demonstrated that as many as three quarters of travelers have consulted online customer reviews and comments as an information source when making travel decisions" (Book, Tanford, Montgomery,

& Love, 2018, p. 447). People believe that online reviews written by travellers are more objective than commercial information (Mellinas, María-Dolores, & García, 2016). Therefore, online reviews have significant business value (Xu, 2019). The literature shows that there is a positive correlation between improvement in reviewers' rating in electronic WoM (eWoM) and online bookings in tourism industries (e.g., Jalilvand, Samiei, Dini, & Manzari, 2012; Lau & Koo, 2020; Leong, Hew, Ooi, & Lin, 2019; Liu & Park, 2015; Ye, Law, & Gu, 2009; Zhang, Ye, Law, & Li, 2010), even though there are huge discrepancies in the representation of the hotel industry across the online review platforms (Mariani & Borghi, 2018; Xiang, Du, Ma, & Fan, 2017).

The OTAs are expected to provide reliable information regarding the hotels' past service quality because they only allow guests who actually stayed at a hotel booked through their platform to write a review on their site, so that the risk of unreliable reviews and manipulation is quite reduced. Moreover, the OTAs themselves have a reputational incentive to ensure that the hotels' actual informative data match those that are published, because if OTAs do not deliver reliable information, they will lose future customers. "Thus, the mechanism that guarantees the OTA's credibility is the OTA's own reputation" (Yacouel & Fleischer, 2012, p. 220). For instance, Booking.com releases quantitative scores for different evaluated hotels that customers can compare, by observing and monitoring the votes and ranks of accommodations based on past guest scoring. This process of ranking is essential for Booking.com, but it is "also crucial for the hotels registered on the platform, as the votes about different dimensions of the hotels can affect their sales and performance" (Garrigos-Simon et al., 2017, p. 423).

It may be argued that OTAs have the effect of influencing the behaviour of hotels, which are encouraged to improve the quality and conditions of the services and products offered to customers, because hotels with better recommendations and votes in Booking.com are likely to sell a higher number of their rooms through the virtual platform or directly from their own website. Actually, "firms perceive online reviews as powerful and often modify their strategic decisions based on posted online reviews" (Rouliez, Tojib, & Tsarenko, 2019, p. 727). Moreover, even though the hotels would prefer to sell rooms through their own websites, they should not undervalue the "billboard effect", i.e. the fact that a hotel listed in OTAs sees a rise in reservations coming through the hotel's website

(Anderson, 2011). This explains why OTAs and hotels cooperate to attract new customers to hotels, but they also compete with each other for attracting returning customers (Chang et al., 2019).

In general, small and independent hotels with the lowest categories show a stronger dependency on Booking.com because of their limitations in financial and staff resources (Martin-Fuentes & Mellinas, 2018). Conversely, the hotels that are better facing competitiveness by reducing their dependence on OTAs “belong to a chain, are medium or large size, or have increased their category” (Garrigos-Simon et al., 2017, p. 424).

## **AN ANALYTICAL MODEL FOR COMPARING DIFFERENT ONLINE MARKETING CHANNELS**

Following the previous analysis, it is clear that there are numerous and competitive platforms to support travel-related search and planning on the Internet (Green & Lomanno, 2012). Despite this variety, there is a paucity of theoretical frameworks to help tourism firms choose profitable ad campaigns. To overcome such a lack of knowledge, the present study proposes a decision-making model for tourism organizations, by comparing Google’s advertisement model with that of Booking.com, which is the most prominent OTA in many European countries (Mellinas, 2019).

As remarked by Li, Wang and Yu (2015), most hotels must make strategic decisions to prioritize resource allocation for different online options because of the limited resources available. If a hotel can use only a limited number of channels, only the highly profitable channels should be chosen (Pal & Mishra, 2017). The basic assumption is that the ultimate goal of advertisers is to increase and maximize their profit by also increasing the rate of conversion. One of the initial steps in this maximization process is to identify the benefits and costs associated with different strategies for increasing online purchases (Baye, De los Santos, & Wildenbeest, 2012). A first important information is the Return on Investment (ROI), which tells a firm how much profit it has made from its ads campaign compared to how much it has spent on those ads (Pan et al., 2011). However, the profitability per a given advertisement or keyword could be better captured by the gross profit margin, determined as the “total revenue net of supply cost, without accounting for handling and other costs”

(Chan et al., 2011, p. 840). The cost of search engine advertising (SEA) is measured according to three variables (Haans et al., 2013): (1) the *number of impressions*, i.e. the number of times the advertising is displayed among search engine results when a specific keyword is used; (2) the *click-through rate*, obtained as ratio between the number of clicks and the number of impressions; and, (3) the *conversion rate*, calculated as ratio between the number of conversions (i.e. buyers) and the number of clicks by visitors. Therefore, the gross profit margin ( $\pi$ ) from an advertised keyword can be expressed as follows:

$$\pi = I \times (CTR \times CONV \times RPO - CTR \times CPC)$$

where  $I$  is the number of ad impressions,  $CTR$  is the click-through rate,  $CONV$  is the conversion rate per click,  $RPO$  is the revenue per order, and  $CPC$  is the average cost per click charged to an advertiser (Agarwal et al., 2011).

To assess the profitability of tourism marketing investment under budget constraints, a company should compare not only the expenses and revenues of a SEM campaign under the CPC scheme, but also the expenses and revenues related to an OTA. Indeed, in order to decide whether and where to spend for marketing activities, one needs to understand the corresponding return in sales and profits of each channel. The assumption is that a firm should allocate a certain budget across different advertising channels, by selecting the best solution in terms of profitability in the light of previous performances. More plainly, this study assumes that an advertiser such as a hotel must decide whether to invest in Google AdWords or in Booking.com, by taking into account also the numbers of rooms that in the past have been booked through the two online platforms.

Unlike Google scheme, the model of Booking.com is commission-based. Booking.com earns revenues through an agency model, taking a commission for sales completed on its site (Rashtchy, Kessler, Bieber, Shindler, & Tzeng, 2007). The base fee is market specific and, as regards hotel booking, it ranges between 13% and 17% of room rates (van der Rest, Cordella, Loosschilder, & Schwartz, 2016). Moreover, hotel chains have in general more bargaining power towards OTAs and, therefore, they are able to negotiate lower commissions than those fixed by the standard contracts between independent hotels and OTAs (Hunold et al., 2018). The benefit of spending for OTA



services can be again measured by the gross profit margin ( $\pi$ ), determined by subtracting the commission percentage ( $CP$ ) required by the OTA from the total revenue ( $TR$ ) that is OTA-related:

$$\pi = TR \times (1 - CP)$$

That said, it is now possible to determine if and how much the OTA commission can compensate for the SEM cost, by generating the same profit. This question can be answered by comparing the performances of the different marketing channels, based on a set of Google and Booking.com variables, which are denoted by the subscripts G and B, respectively.

A firm investing in an ad campaign on Google expects to earn a gross profit margin ( $\pi_G$ ) determined as follow:

$$\pi_G = TR_G - TC_G$$

where  $TR_G$  and  $TC_G$  are the total revenue and total cost, respectively, associated to the Google-sponsored search advertising.

Conversely, if the company advertises on Booking.com, the expected gross profit margin ( $\pi_B$ ) can be written as:

$$\pi_B = TR_B \times (1 - CP_B)$$

where  $TR_B$  is the total revenue earned by Booking.com and  $CP_B$  is the commission percentage (value between 0 and 1) paid to Booking.com per single reservation performed through the OTA, because the net price received by the hotel is computed by simply multiplying the price by the factor  $(1 - CP_B)$ .

Assuming that the Google ads campaign generates no additional order beyond the orders subtracted to Booking.com ( $TR_G = TR_B$ ), the competition between the two models of gross profit margin ( $\pi_G = \pi_B$ ) can be expressed in mathematical term by the equation (1):

$$TR_G - TC_G = TR_G \times (1 - CP_B) \quad (1)$$

Note that the present research does not propose that Google and Booking.com are *always* competitors, but they are only if a visitor books a hotel promoted by both channels, because the user books only once. Specifically, we assume that the customers acquired from Google would not be acquired from

Booking.com, and vice-versa. More plainly, a potential guest demands at most one room in a given time period. By performing the multiplication, the equation (1) can be rewritten also as (2):

$$TR_G - TC_G = TR_G - TR_G \times CP_B \quad (2)$$

By removing the common term ( $TR_G$ ) from the two sides of equation (2) and by moving the variables in order to have parameters with positive signs, the equation (3) can be obtained:

$$TC_G = TR_G \times CP_B \quad (3)$$

Since the total cost per clicks ( $TC_G$ ) is the product of the click number ( $CN_G$ ) and the cost per click ( $CPC_G$ ), it is possible to write:

$$CN_G = \frac{TC_G}{CPC_G} \quad (4)$$

Moreover, as the order number generated from Google AdWords ( $ON_G$ ) is the product of the click number ( $CN_G$ ) and the conversion rate ( $CONV_G$ ), it follows that (5):

$$ON_G = CN_G \times CONV_G \quad (5)$$

Furthermore, since the total revenue earned by Google ads ( $TR_G$ ) is the product of the order number ( $ON_G$ ) and the average revenue per order ( $RPO_G$ ), the formula for  $TR_G$  is given by (6):

$$TR_G = ON_G \times RPO_G \quad (6)$$

By replacing  $ON_G$  in (6) with the formula (5), the previous equation (6) can be rewritten as the formula (7):

$$TR_G = CN_G \times CONV_G \times RPO_G \quad (7)$$

By replacing  $CN_G$  in (7) with the formula (4), the previous expression (7) can be rewritten in the following way (8):

$$TR_G = \frac{TC_G \times CONV_G \times RPO_G}{CPC_G} \quad (8)$$

Inserting the expression (8) into the  $TR_G$  in equation (3), the  $TC_G$  is given by (9):

$$TC_G = \frac{TC_G \times CONV_G \times RPO_G}{CPC_G} \times CP_B \quad (9)$$

Dividing both sides of (9) by  $TC_G$ , the following equation can be obtained (10):

$$1 = \frac{CONV_G \times RPO_G}{CPC_G} \times CP_B \quad (10)$$

Lastly, by solving the equation for  $CPC_G$ , the following expression is obtained (11):

$$CPC_G = CONV_G \times RPO_G \times CP_B \quad (11)$$

The formula (11) states that the maximum cost per click ( $CPC_G$ ) to be incurred by the advertiser to gain from Google AdWords the same profit attainable via Booking.com is equal to the product of the conversion rate ( $CONV_G$ ) and the average revenue per order ( $RPO_G$ ) and the commission percentage ( $CP_B$ ) agreed to Booking.com. Essentially, the formula indicates what is the maximum cost that a firm investing in the CPC scheme is willing to pay for a click on its ad to have the same profit obtained from Booking.com.

The model's strength lies in its ability to combine and compare data from different online channels by enabling advertisers to select the most viable format. By using data on actual reservations made, the formula indirectly captures some incidents that can reduce the dependency on intermediaries, such as cancellations and direct bookings on the hotel's website. Another strength of the model is its general relevance. Although the model is limited to comparing Google AdWords and Booking.com, its validity can be extended to other search engines and OTAs using business models, conditions and pricing strategies similar to those adopted by the two big players.

However, the model has some drawbacks. First, its validity is restricted to situations where the CPC option is the charging scheme applied to the SEM users, even though this scheme is the most common option used. Second, the formula does not capture the eventual mutual interactions between the two online channels, by ignoring that the sales coming from Booking.com can indirectly benefit from the firm's visibility on Google and vice-versa. However, the extent of this reciprocal influence is

still unclear and deserves further investigations. In addition, the method is sensitive to historical data, even though past data could provide sufficient evidence for predicting the future performances, in absence of significant internal and external changes. Finally, the model supposes the application of room rate parity, entailing “the sale of the same room, to the same customer, at the same price across all distribution channels” (Haynes & Egan, 2015, p. 925). However, the use of rate parity is deemed a necessary rule to avoid channels’ conflicts and consumers’ perceived unfairness of pricing variations (Haynes & Egan, 2015). For these reasons, the model can only be used to provide a first indication of the relative profitability of different online channels over time, with the consequence that the maximum cost per click ( $CPC_G$ ) could be interpreted as a reference cost between Google and Booking.com.

## **THE IMPLEMENTATION OF THE ANALYTICAL MODEL FOR HOTEL PERFORMANCES**

The practical relevance of the theoretical model is here illustrated by analysing the performances of two hotels, because the keywords related to accommodation are among the most frequently used queries that travellers search online (Xiang & Pan, 2011). Such an analysis is of paramount importance because, as revealed by the investigation carried out by Murphy and Kielgast (2008), small- and medium-sized hotels seem not to exploit strategic marketing planning, metrics and SEM.

In particular, to illustrate how the previous formula works in practice, this research used historical advertising data recorded by two Italian hotels located in two close beach towns located on the Adriatic coast. In particular, the first one (Hotel 1) is a three-star and leisure hotel located in Cattolica and the other (Hotel 2) is a four-star and business hotel located in Rimini. Since 2011, Hotel 1 operates under a management contract and from the same year it started to use Google AdWords and Booking.com tools. Instead, Hotel 2 is an independent hotel owned since 2015 by a person who started using Google AdWords and Booking.com in 2018 and 2015, respectively. Both hotels manage internally Google AdWords and Booking.com channels, because the fees required by web agencies overcome the amount of digital marketing budget, even though those specialized agencies could

potentially provide the hotels with better results. For confidentiality reasons, neither hotel name is reported.

Table 1 shows the main data for the paid search campaigns run by the two hotels on Google in the period from April to September 2018, while Table 2 provides the data for Booking.com services accessed by the hotels in the same period. The time range is sufficiently long to encompass peak periods (during the Easter and summer vacations) and non-peak periods (the remaining months) for the hotels.

As shown in Table 1, Hotel 1 displays an interesting conversion rate able to generate an adequate return from investing in Google AdWords. Particularly, 292 out of 7,680 people who visited the hotel website made a reservation, leading to a conversion rate of 3.80% in the six months period. In the same period, reservations coming from Booking.com generated revenues for € 35,420 and commission costs for € 5,313, as reported in Table 2. The average amount per reservation ( $RPO_G$ ) is equal to € 121.30, which is obtained by dividing the revenues from Booking.com (€ 35,420) by the number of orders ( $ON_G$ ) from Google (292), in line with the previous assumption that the Google ads campaign generates no additional reservation beyond the reservations subtracted to Booking.com ( $TR_G = TR_B$ ). Applying the formula (11), the maximum cost per click ( $CPC_G$ ) is equal to € 0.69, obtained as product of  $CONV_G$  (3.80%) and  $RPO_G$  (€ 121.30) and  $CP_B$  (15%). Therefore, the analysed hotel could consider its Google ads campaign competitive with Booking.com because the average actual cost for click (€ 0.23) was lower than the maximum  $CPC_G$  (€ 0.69) resulting from the formula (11), as reported in Table 3.

Conversely, a different scenario was observed for Hotel 2, featuring a quite low conversion rate ( $CONV_G$ ), equal to 2.5% and a revenue per order ( $RPO_G$ ) equal to € 145.35, which is obtained by dividing the revenues from Booking.com (€ 39,389.85) by the number of orders ( $ON_G$ ) from Google (271). Multiplying the  $CONV_G$  (2.5%) by the  $RPO_G$  (€ 145.35) and the  $CP_B$  (15%), the maximum cost per click ( $CPC_G$ ) can be computed, obtaining the value of € 0.55. In this case, the average actual cost for click (€ 0.62) was higher than the maximum  $CPC_G$  (€ 0.55), as reported in Table 3. Such a situation suggests that Hotel 2 would have considered the opportunity of investing either more money or exclusively in the Booking.com channel, since the investment in Google AdWords proved not to be

equally effective, probably because of the more competitive market for business hotels, or because of the shorter period of experience with search engine marketing. The hotel resources and size can play an important role on the online visibility, but the owner-manager’s knowledge and their championing of information technologies are undoubtedly determinant factors in obtaining success and accessing new customers through Internet marketing (Smithson et al., 2011).

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Insert Table 1 about here  
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Insert Table 3 about here  
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All else being equal, the changes in profit from Google Adwords to the changes in the actual  $CPC_G$  (primary horizontal axis) and the changes in profit from Booking.com to the changes in the  $ON_B$  (secondary horizontal axis) can be observed in Figure 1 and in Figure 2, which also show for Hotel 1 and Hotel 2, respectively, the maximum  $CPC_G$  that graphically is the intersection point between the two profit lines.

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Insert Figure 1 about here  
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Insert Figure 2 about here  
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Moving beyond the specific situations, the model here suggested discloses clear managerial implications. For a firm, a Google ad campaign can be regarded as more effective than Booking.com partnership when the advertiser is able to control his actual  $CPC_G$ , keeping it below the maximum  $CPC_G$  resulting from the formula (11). An opposite conclusion can be drawn if the advertiser had an actual  $CPC_G$  higher than the maximum  $CPC_G$ , because this means that the Google ad campaign is less profitable than the Booking.com channel. In this situation, the firm should carefully consider whether it is the case to reduce the maximum bid in Google AdWords or, alternatively, to migrate all the resources associated with online channels to Booking.com. Obviously, the same situation could also be managed by improving the advertisement’s quality on Google, but the problem is that “quality

improvements lead to higher weighted bids, which decrease prices per click only if the weighted bids do not improve the ad ranking. Otherwise, better ranks likely lead to higher prices per click and higher costs for SEM, with ambiguous consequences for profit” (Abou Nabout & Skiera, 2012, p. 152).

Essentially, without the necessary skills and e-marketing, small hotels do not exploit the opportunities of successful SEM (Murphy & Kielgast, 2008).

A clear effect of variables on the maximum  $CPC_G$  can be studied, just by directly observing the model’s parameters, especially those under the firms’ control. The parameter of commission percentage ( $CP_B$ ) is not under the firms’ control, being under the decision power of Booking.com, even though in some cases margins of negotiations are possible (Hunold et al., 2018). The higher the  $CP_B$ , the higher is the maximum  $CPC_G$ . Conversely, an advertiser willing to increase the maximum  $CPC_G$  can act on the remaining variables by increasing the conversion rate ( $CONV_G$ ) and the average revenue per order ( $RPO_G$ ). However, an increase in the average revenue per sale is not easy because of the effect of world competition on the prices of goods. An increased price is likely to reduce the demand for the product or service, due to the intensity of price competition. Indeed, the ease of price comparison brought about by the Internet has made price competition fiercer in the online environment.

It follows that the best strategy to improve the maximum  $CPC_G$  lies with improving the conversion rate ( $CONV_G$ ). The increase in the conversion rate is the ultimate goal for any ad campaign on search engine marketing but, as previously explained, this goal is a challenging and expensive task. Moreover, the costs can lower the profit, if they are not offset by an adequate increase in revenues. Indeed, for complexity reasons, firms, above all small- and medium-sized enterprises, often do not self-manage their SEM, but outsource it to external web marketing agencies, which must be paid for. In particular, “the design of an appealing website can be outsourced and be created by a specialised web designer” (Smithson et al., 2011, p. 1583).

Alternatively, the time-consuming process of SEM can be internally managed by firms themselves by recruiting relevant profiles and by remunerating specialised workers, while no additional staff cost is in general required when companies are involved with Booking.com. Therefore, complying with the rule of the maximum cost per click, as formulated above, should be deemed even

more stringent, if one considers that the underlying formula omits the additional cost of expert staff for time spent adjusting AdWords campaigns.

In summary, as synthesized in Figure 3, an increase in the bid ( $\Delta^+ Bid_G$ ) and/or an improvement of the quality of the ads ( $\Delta^+ AdQ_G$ ) should lead to a better rank ( $\Delta^+ Rank_G$ ) that, in turn, should increase the click-through rate ( $\Delta^+ CTR_G$ ). Moreover, the increase in the click-through rate and the increase in the conversion rate ( $\Delta^+ CONV_G$ ) lead to increases in total revenue ( $\Delta^+ TR_G$ ). However, the increase in the bid causes an increase in the cost per click ( $\Delta^+ CPC_G$ ). Yet the increased cost per click, improved quality of the ad and increased click-through rate cause increases in total cost ( $\Delta^+ TC_G$ ). As consequence, the final effect on profit is uncertain ( $\Delta^? \pi_G$ ), depending on the relative size of increases in total revenue and cost. It should be noticed that the mechanisms identified in Figure 3 require an increase in the digital marketing budget, but further investments could be hindered by financial constraints affecting especially SMEs.

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Insert Figure 3 about here  
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For this reason, managers and marketers should thoroughly analyse their historical data and performances to decide if and how their hotels should arrange the advertisement strategy to improve their profits in the future. Similarly, advertisers who charge a web marketing agency with the task of promoting their services should claim that the same web marketing agency reports and sends them periodically at least four parameters, namely the actual cost per click and the conversion rate related to Google ads campaign, as well as the commission fee and revenues associated with Booking.com campaigns. Obviously, such metrics are relevant to web marketing agencies *in primis* to well advise their clients about the best marketing strategy. By analysing the historical and recent data associated with different marketing and distribution channels, companies and web marketing agencies should be able to efficiently choose the best digital strategy to reduce the profit erosion caused by increased competition from online platforms.



## CONCLUSIONS

In the competitive tourism environment, hospitality enterprises strive to exploit various online distribution channels to increase their visibility and to support online purchasing. Despite the usefulness and growth of search advertising, there is still little understanding of how advertisers profit from different sponsored search platforms. At the heart of the present study is the question how tourism firms such as hotels should select different ad campaigns under budget constraints. Our results contrast the theoretical relevance of investing in multiple digital channels for the success of hotels when there is a limited amount of time, resources and information.

Hotels are required to arrange and update their professional knowledge and skills for benefiting from the diversified and modern ways of promoting and selling their offer. This could entail the creation of two new positions, including an eCommerce Manager, who would manage the business from third-party websites like OTAs, and an eBusiness Manager, who would handle search engine optimization and social media marketing (Law et al., 2015). However, these additional expenses may be prohibitive for some small companies.

This study provides insights that should inspire firms to make the right decisions for rationalizing their investment in different digital marketing channels in order to improve their profit. Information on the return from ads campaigns is not sufficient for marketing decisions, which should be made after taking into consideration the reservations that could be generated by other channels, the most important of which is the OTA. The Google AdWords platform could be highly profitable for many businesses but, in the absence of due vigilance and knowledge, it could become an unproductive investment with a continued net drain of money out of the advertising budget (Miller, 2016). In spite of academic studies that have attempted to compare the performance of search engines on a scientific basis (Gordon & Pathak, 1999; Hawking, Craswell, Bailey, & Griffiths, 2001; Vaughan, 2004), there is scarce evidence about the advertiser's convenience to continue using Google sponsored search advertising given the cost hike (Chan et al., 2011).

By developing a model that helps managers to evaluate different performances, the study suggests a maximum cost per click that every hotel should calculate in order to make decisions about future

resource allocation to marketing channels. The computational requirement of the method here developed is small enough to make its use very practical and helpful. According to the real data from two hotels that advertise on Google and Booking.com, the research empirically tests the relationship between different metrics, by implementing a computation model helpful in making decisions under limited resource constraints. In this way, the research tries to shed light on part of the complex advertising landscape. There are, however, several limitations in the research.

First, the model focuses exclusively on identifying which online channel is economically the most effective between Google AdWords and Booking.com, without taking into account the positive effects of a variety of tools based on the web marketing mix strategy. Assuming a problem of trade-off between two different online channels, the model ignores the benefits that businesses may achieve from diversifying and maximizing the number of electronic distribution channels, thus it underestimates “the beneficial effect on sales produced by the interdependent and interlinked platforms through the Web” (Beritelli & Schegg, 2016, p. 82). Essentially, the paper supposes a trade-off between Google AdWords and Booking.com, assuming that an advertiser does not, or may not pursue a multi-channel strategy in the online ecosystem. However, such an assumption may sound realistic if the company’s budget does not allow multiple online marketing channels, as it happens with many small-sized firms and hotels.

Second, this article assessed Google AdWords and Booking.com as tools for filling rooms that might otherwise not be sold, rather than as possible threats of losing profit margins when direct bookings come from the hotel websites to search engines and OTAs (Beritelli & Schegg, 2016). However, the question of how hotels should maximize their net room revenues by steering customers to their own websites is out of the scope of this paper, but interesting considerations can be found in other studies (e.g., Garrigos-Simon et al., 2017; Law et al., 2015; Stangl et al., 2016; Toh et al., 2011).

Third, the study applied the suggested computational model to two hotels, which resulted to profit differently from SEM campaigns; therefore, a generalization cannot be derived from those findings. As posited by Inversini and Masiero (2014), the effectiveness of digital channels for online sales is influenced by the competencies of people employed to manage the online environment, and by hotel-specific characteristics, such as size, star rating and affiliation. Different geographical and touristic

contexts may also influence the effectiveness of certain digital channels implemented by hotels. Future research can provide further contribution to this preliminary insight by replicating the analysis on data sets obtained from the tourist accommodation industry, to detect the effectiveness of web marketing strategies as a whole. Moreover, the analysis would be much more interesting if it could be applied and generalized to the various sectors of tourism, in which the extent of competition for search advertising is similar. This analysis could reveal whether, on average, firms belonging to specific tourism sectors and countries make the optimal channel choices with regard to Google AdWords and Booking.com channels. Furthermore, this analysis could unveil that, from the advertisers' perspective, the Google AdWords platform performs better than Booking.com (or vice-versa), depending on the tourism sector. Such findings could induce Booking.com to reduce its commission percentages for the tourism sectors that the Google AdWords platform makes more attractive to advertisers.

The findings could have implications for search engines too. By making more optimal decisions, advertisers could enforce different intermediaries to change the price clauses for their marketing services. The traffic leading to the demand for hotel rooms is deeply dominated by the interests of powerful online media, including Google, Facebook, and the OTAs. "This dynamic can push up the costs of acquiring and retaining demand, and challenge a hotel's ability to achieve acceptable profit levels; conversely, it can create competition between intermediaries that can be leveraged to the hotelier's advantage" (Green & Lomanno, 2012, p. 6). Companies can shape future scenarios to their own advantages if they proactively manage channel costs and choose the best mix of channel partners. A careful selection of marketing strategies used by firms could lead to a cost reduction in the prices of online mediation. Such potential benefits provide additional incentives to further explore the challenging questions of online marketing strategy from the advertiser's perspective.

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**Table 1**  
**Descriptive Statistics for Google Data**

Parameter	Hotel 1	Hotel 2
Number of impressions ( $I_G$ )	2,160,000	3,945,700
Number of clicks ( $CN_G$ )	7,680	10,821
Number of reservations or order number ( $ON_G$ )	292	271
Total cost ( $TC_G$ )	€ 1,746.23	€ 6,680.42
Average website's position	3° in the 1 <sup>st</sup> page	3° in the 1 <sup>st</sup> page
Click-through rate ( $CTR_G$ )	0.36%	0.27%
Conversion rate ( $CONV_G$ )	3.80%	2.50%
Cost per click ( $CPC_G$ )	€ 0.23	€ 0.62
Cost per reservation	€ 5.98	€ 24.65

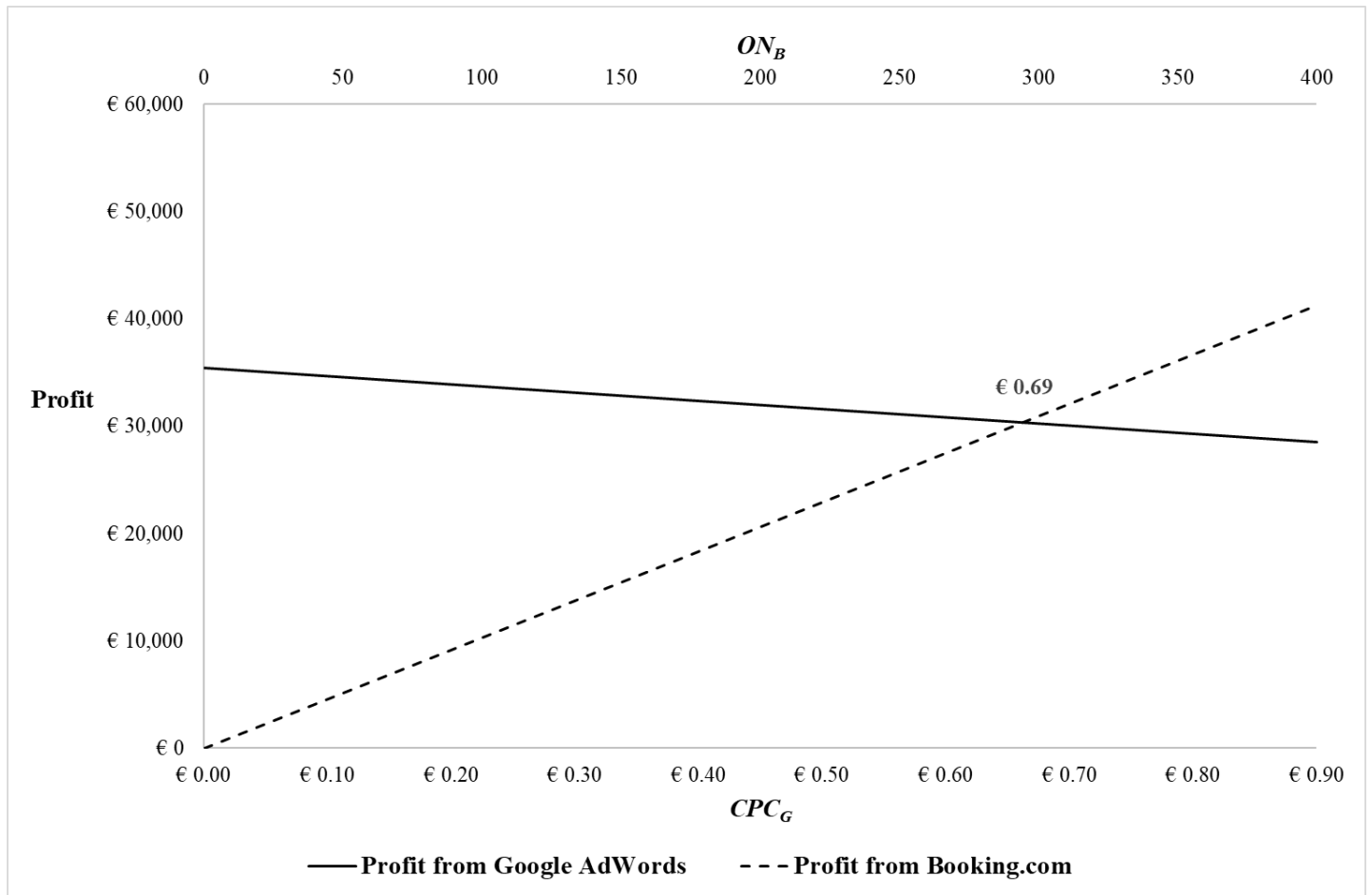
**Table 2**  
**Descriptive Statistics for Booking.com Data**

Parameter	Hotel 1	Hotel 2
Total revenue ( $TR_B$ )	€ 35,420.00	€ 39,389.85
Commission percentage ( $CP_B$ )	15%	15%
Total cost ( $TC_B$ )	€ 5,313.00	€ 5,908.48

**Table 3**  
**Key Variables and Results from the Two Hotels**

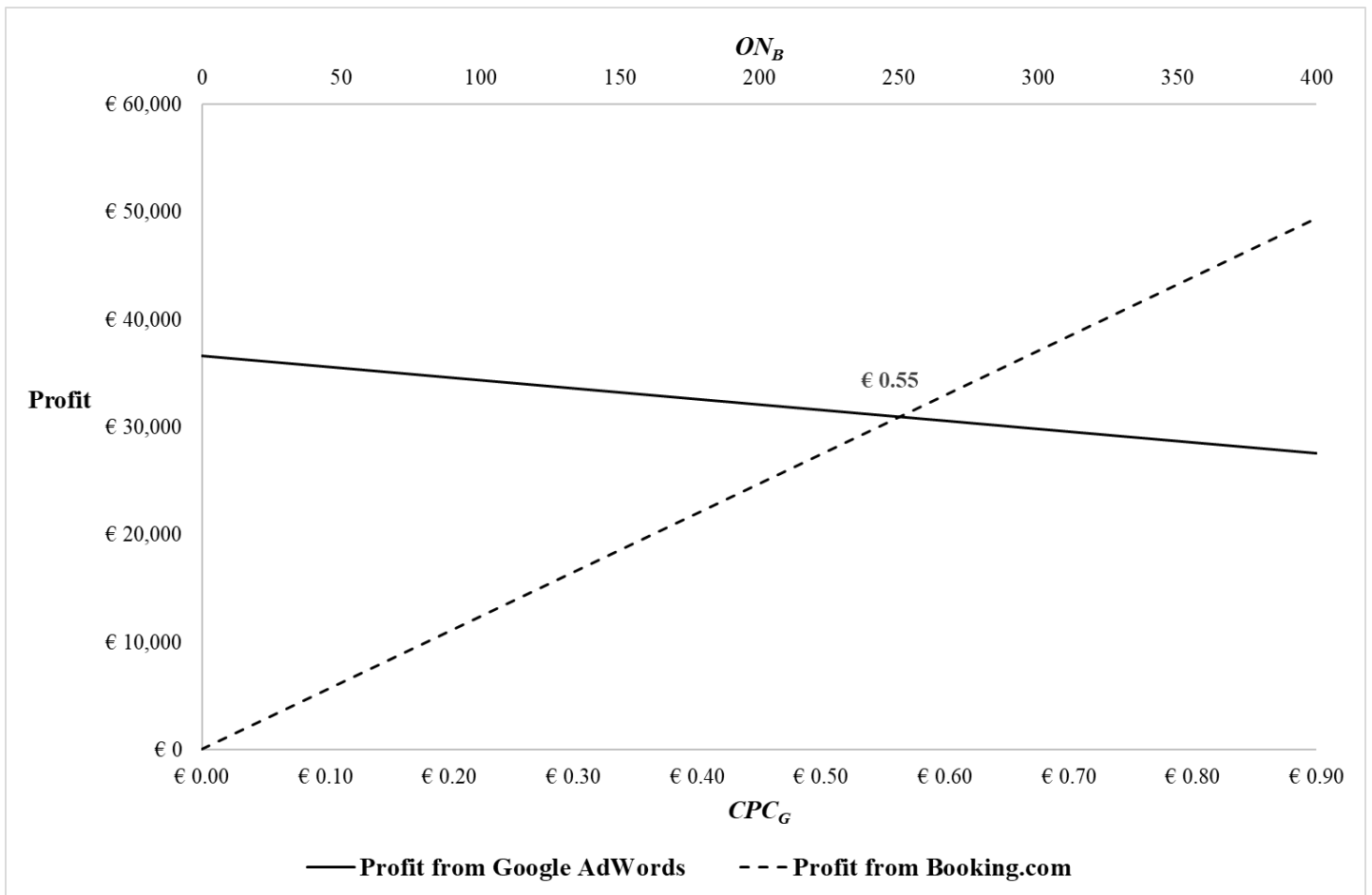
Hotel	<i>CONV<sub>G</sub></i> (1)	<i>RPO<sub>G</sub></i> (2)	<i>CP<sub>B</sub></i> (3)	<i>Maximum CPC<sub>G</sub></i> (4) = (1) x (2) x (3)	<i>Actual CPC<sub>G</sub></i> (5)
Hotel 1	3.80%	€ 121.30	15%	€ 0.69	€ 0.23
Hotel 2	2.50%	€ 145.35	15%	€ 0.55	€ 0.62

**Figure 1**  
**Profits of Hotel 1 from Google AdWords and from Booking.com**





**Figure 2**  
**Profits of Hotel 2 from Google AdWords and from Booking.com**



**Figure 3**

**Framework for Understanding the Variability of Profit from Google AdWords**

