

# Current Dynamics and Future Growth of Online Travel Agencies

Qun Zhou, Renmin University of China, China\*

Amit Shankar, Indian Institute of Management, Vishakapatnam, India

Amit Dixit, Ramaiah University of Applied Sciences, Bangalore, India

Meena Bhatia, Birla Institute of Management Technology, India

 <https://orcid.org/0000-0003-4579-0109>

Ankit Mehrotra, Jaipuria Institute of Management, Lucknow, India

 <https://orcid.org/0000-0001-6761-2333>

## ABSTRACT

Although the literature on online travel agencies is growing, it is fragmented and incoherent. Hence, this review aims to synthesize the online travel agencies and suggest directions for future research on online travel agencies. The review adopted an integrative literature review method by undertaking a review of sixty-nine empirical studies following rigorous protocols. The review presents the research profile, key research themes, gaps, and limitations of the prior literature. Furthermore, the directions of future research as well as the development of a comprehensive research framework, are also presented. There were five major research themes identified based on prior studies. The study findings will facilitate the scholars and practitioners to contemplate the diverse aspects of the online travel agencies ecosystem, contexts of contemporary research and the methodological progressions for future work. The study provides crucial implications, including integrations of online and offline channels, internet word-of-mouth applications and stakeholder identifications.

## KEYWORDS

Online services, online travel agencies, systematic literature review, word-of-mouth

## CURRENT DYNAMICS AND FUTURE GROWTH OF ONLINE TRAVEL AGENCIES

Online travel agencies (OTAs) have a significant and transformational impact on the contemporary travel business, influencing both the experiences of travelers and travel service providers. OTAs are Web site or mobile applications specializing in selling travel-related products and services by providing consumers with ease of use and convenience (More & Thomases, 2018). They are potent channels contributing to the sales and revenues of hotels by strengthening the challenge of price and service-based competition (Caliskan et al., 2013). Besides, OTAs provide a trusted and effective

DOI: 10.4018/JGIM.341797

\*Corresponding Author

This article published as an Open Access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0/>) which permits unrestricted use, distribution, and production in any medium, provided the author of the original work and original publication source are properly credited.

platform for consumers to dream, shop, buy travels, and share information about their experiences (Carroll & Sileo, 2014); and are a valuable tool for preserving market positions, fulfilling consumer demands, and executing integrated marketing strategies (Carroll & Sileo, 2014).

There is a growing trend among consumers to rely on OTAs, such as Expedia, to organize their trip arrangements (Statista Research Department, 2024) independently. Subsequently, numerous firms are utilizing mobile apps and Web sites in this sector (Leung et al., 2018; Liu & Law, 2013). The influence of OTAs on the tourism industry and its clientele is demonstrated by prominent OTAs' (e.g., Expedia and booking.com) substantial revenue, which exceeded 90 billion USD each in 2018 (Statista Research Department, 2024). The tourism sector has grown faster than the trade of goods and services since 2012 (United Nations World Tourism Organization, 2016), and international tourism now represents close to 7% of the world's exports in goods and services (United Nations World Tourism Organization, 2019). This growth in the tourism industry can be attributed to a certain degree to the accelerated adoption of technological innovations (e.g., e-services and mobile apps) (Belias et al., 2017). These innovations and growing consumer savviness have resulted in profound and far-reaching changes in the tourism sector (Xiang, 2018).

A result of the increasing significance of OTAs in the tourism industry has been a notable increase in the number of studies exploring various facets of OTAs. These aspects include hotels' profitability as well as performance (Caliskan et al., 2013), competition among service providers (Roma et al., 2015), and examining the impact of OTAs on customer satisfaction (Ali, 2016) and loyalty (Lee et al., 2016; Torres et al., 2013). Additionally, studies have been conducted on how OTAs enact opportunities for sustaining competitive advantages by exploiting context-aware data gathered from customers' choices and lifestyles (Kim & Kim, 2017) and how hotels are cooperating with OTAs to increase their market share (Ling et al., 2014). While these studies have made valuable contributions to the advancement of research in OTAs, it is essential to acknowledge that the discipline encompasses a considerably more comprehensive range of topics. Furthermore, the research on OTAs has evolved in a disjointed fashion, making it challenging to discern the scope of the discipline and its advancements.

A comprehensive and structured literature review (SLR) addresses these concerns effectively. It would advance the current body of knowledge in this field. The SLR methodology has been utilized because of three main reasons. First, it helps scholars to obtain a state-of-art overview of research on any given topic (Burgess et al., 2019). Second, SLRs can assist in identifying contradictions or inconsistencies about previously examined associations in literature and explicate the reasons for the same (Cooper et al., 2003; Piper, 2013). Third, a well-conducted SLR can enable scholars to dissect important research themes, gaps, and limitations of prior studies to delineate possible avenues of future research (Aznoli & Navimipour, 2017; Mallett et al., 2012). Further, SLRs can assist researchers by reducing the bias and chance effect, which enhances the legitimacy of data (Reim et al., 2015) and, subsequently, their derived insights. Thus, SLRs can assist in deriving pertinent conclusions from prior research and clarifying the development of a research field (Reim et al., 2015; Tranfield et al., 1995).

This SLR addressed three primary research questions (RQs):

1. What is the research profile of the prior body of literature on OTAs?
2. What are the different research themes scholars investigated in the prior literature on OTAs?
3. What are the gaps and limitations of prior literature, and what are the different avenues of future research on OTAs?

To address the first RQ and elucidate the present state of research in this field, the authors undertook a comprehensive descriptive study of existing literature. The data illustrated the pattern of the mean quantity of citations. Additionally, the data provided an overview of key statistical measures, including research methodologies, publishing schedules, and authorial contributions, among other relevant factors. In relation to the second RQ, to ascertain research themes, the authors synthesized various research studies. They also determined the correlation between the factors

influencing the utilization of OTAs to analyze the research themes. To address the third RQ, the authors thoroughly examined several research gaps and limitations in previous literature on the topic, which prompted identifying and presenting options for further research. Then, the authors organized these avenues within a complete framework that can guide future scholars seeking to advance the current understanding of OTAs.

Thus, the authors' review aimed to address the existing gaps in the literature by providing a complete and rigorous analysis of the OTAs industry. In this study, the researchers aimed to comprehensively analyze and consolidate the fundamental components of the OTA domain, and determine the most pertinent areas that need further scholarly investigation. As a result, this study offers an innovative and novel perspective on OTAs. The authors identified five critical themes: Customer buying decisions, online rating and reviews, revenue management and pricing, Web site effectiveness and experiences, channel sales, distribution methods, and social media presence. The authors thoroughly analyzed these themes and identified gaps, limitations, and potential areas for further research under each theme. The study additionally presents a conceptual framework that considers the perspectives of customers, businesses, and online travel agents. This framework was produced by drawing upon various insights from a systematic literature review.

The authors' study will provide valuable guidance for future research endeavors in OTAs. However, it is essential to note that this contribution extends beyond the confines of academia. This research offers valuable insights into the OTA industry, which can be utilized by various practitioners, including management personnel and service providers in the lodging, hotel, airline, and travel booking agency sectors. This information can aid in these professionals' evaluation and decision-making processes, specifically in understanding customers' expectations and creating personalized customer experiences. Also, it helps them identify customers, which drives the firm's profitability and performance, optimizing costs in the relevant areas and reducing expenses.

The subsequent sections of the paper are organized as follows. The literature review provides a comprehensive examination and evaluation of previous scholarly works about research topics within the context of the OTA ecosystem. The *Methodology* section provides an overview of the authors' technique in conducting this literature analysis. It also gives summary statistics that outline the current state of research in the field, such as citation score, publication chronology, country of study, and notable contributors. The *Results* section presents a complete framework of earlier research, aiming to enhance current understanding of the function of OTAs in the tourist sector. This framework also offers an overview of the application network of OTAs, specifically about consumers and service providers. The *Conclusion* section serves as the final part of the study, presenting the implications and limitations.

## LITERATURE REVIEW

The authors' review of previous literature related to OTAs evidenced that scholars had carried out an in-depth investigation on several elements of this dynamic and complex area. An important research topic in this area is understanding user behavior and preferences, entailing a thorough examination of how travelers interact with OTAs to plan their journeys (Li et al., 2021; Ye et al., 2019), and taking into account the numerous variables that affect their selection of OTA (Liu et al., 2020; Talwar et al., 2020a), the patterns that direct their search behavior (Pop et al., 2022; Talwar et al., 2020b), and the complex decision-making processes that result in the ultimate booking decision (Bigne et al., 2020; Halkiopoulou et al., 2022). Scholars also explored how user-generated content (e.g., reviews, ratings, and feedback) influences travellers' booking decisions and builds OTA trust (Albayrak et al., 2020; Ray & Bala, 2021).

OTAs' pricing tactics were another intriguing and diverse field of study (Elgarhy, 2023; Kim et al., 2020). Researchers explored the nuances of how OTAs determine and oversee the prices of their products within this arena (Sreen et al., 2023; Wang et al., 2023). In different studies, researchers

examined several pricing methods, including dynamic pricing, bundling, and discounts (Mumbower et al., 2023; Wahyuni et al., 2022).

Researchers have many opportunities to explore the unquestionably important and always-changing role that technology and innovation play inside OTAs (Choi et al., 2022; Gursoy et al., 2022; Sharma et al., 2022). The adoption and effects of cutting-edge technologies such as blockchain, artificial intelligence (AI), augmented reality, and virtual reality on the services OTAs offer are only a few of the important aspects of this research area. Research showed that the creation of AI-powered chatbots and virtual assistants that can respond to client inquiries, customize suggestions, and expedite the reservation process plays an essential role in OTA adoption (Calvares et al., 2023; Zhu et al., 2023). Studies also evaluated how AI might enhance customer satisfaction, response times, and OTAs' overall efficacy in meeting the needs of travelers (Gupta et al., 2023; Talwar et al., 2022). With its focus on security, transparency, and decentralized record-keeping, blockchain presents an intriguing research topic for the context of OTAs (Ampountolas et al., 2022; Su et al., 2022). The scholarly investigation included how blockchain technology is incorporated into OTA platforms to augment credibility, optimize payment procedures, and eradicate counterfeit listings (Jain et al., 2023; Madanaguli et al., 2022).

To expansively comprehend the OTA landscape, a deep plunge into the competitive underlying forces is necessary, which also entails examining how traditional travel agencies, metasearch engines, and the trend of direct hotel and airline booking have affected OTA operations (Singh et al., 2022; Ye et al., 2022). Research on how OTAs promote environmentally friendly and ethical travel options is becoming increasingly relevant in light of a growing emphasis on sustainability and responsible tourism (Deb et al., 2022; Dhir & Srivastava, 2023). Studies examined customer preferences for eco-friendly lodging, travel, and entertainment (Paul & Roy, 2023; Xia et al., 2022).

The retention and loyalty of customers are essential components of OTA business strategies. Scholars examined the tactics utilized by OTAs to foster and preserve client loyalty, entailing determining the elements that result in recurring reservations and long-lasting client connections and examining the effectiveness of loyalty programs and reward schemes (Agarwal et al., 2022; Rasmidatta, 2022; Santos et al., 2022).

Constantly changing market trends and upheavals significantly impact the OTAs industry. Scholars examined how outside variables, such as natural catastrophes, pandemics, and economic downturns, impact the OTA industry and how OTAs adjust their services and business plans in response (Chaudhary et al., 2023; Sharma et al., 2022).

In addition, researchers studied the changing regulatory environment and its effects, including issues with taxation, consumer protection, and anticompetitive behavior (Minoia & Jokela, 2022; Yallop et al., 2023). Further investigation covered the importance of alliances with hotels, airlines, rental car agencies, and other travel service providers in the OTA business model, along with a platform and distribution channel analysis of how OTAs reach their clientele (Migdadi, 2022; Wan et al., 2022).

Other research topics on OTAs were customer service and support, which are crucial to the OTA experience (Afaq et al., 2023; Jo et al., 2022). Some scholars investigated the level of customer service OTAs offer, considering elements such as response times, problem-solving, and support for various contact channels (Buhalis & Moldavska, 2022; Sharma et al., 2023). As to social media and influencer marketing, researchers evaluated how well social media initiatives and influencer marketing work promote travel reservations made through OTAs (Seyfi et al., 2022; Yuan et al., 2022).

In summary, the theoretical framework the authors developed based on earlier studies about OTAs offers a strong basis for comprehending this vibrant and constantly changing sector. This framework provides a thorough grasp of the many facets of OTA services, including user behavior, pricing strategies, technology advancements, market dynamics, and regulatory issues.

## METHODOLOGY

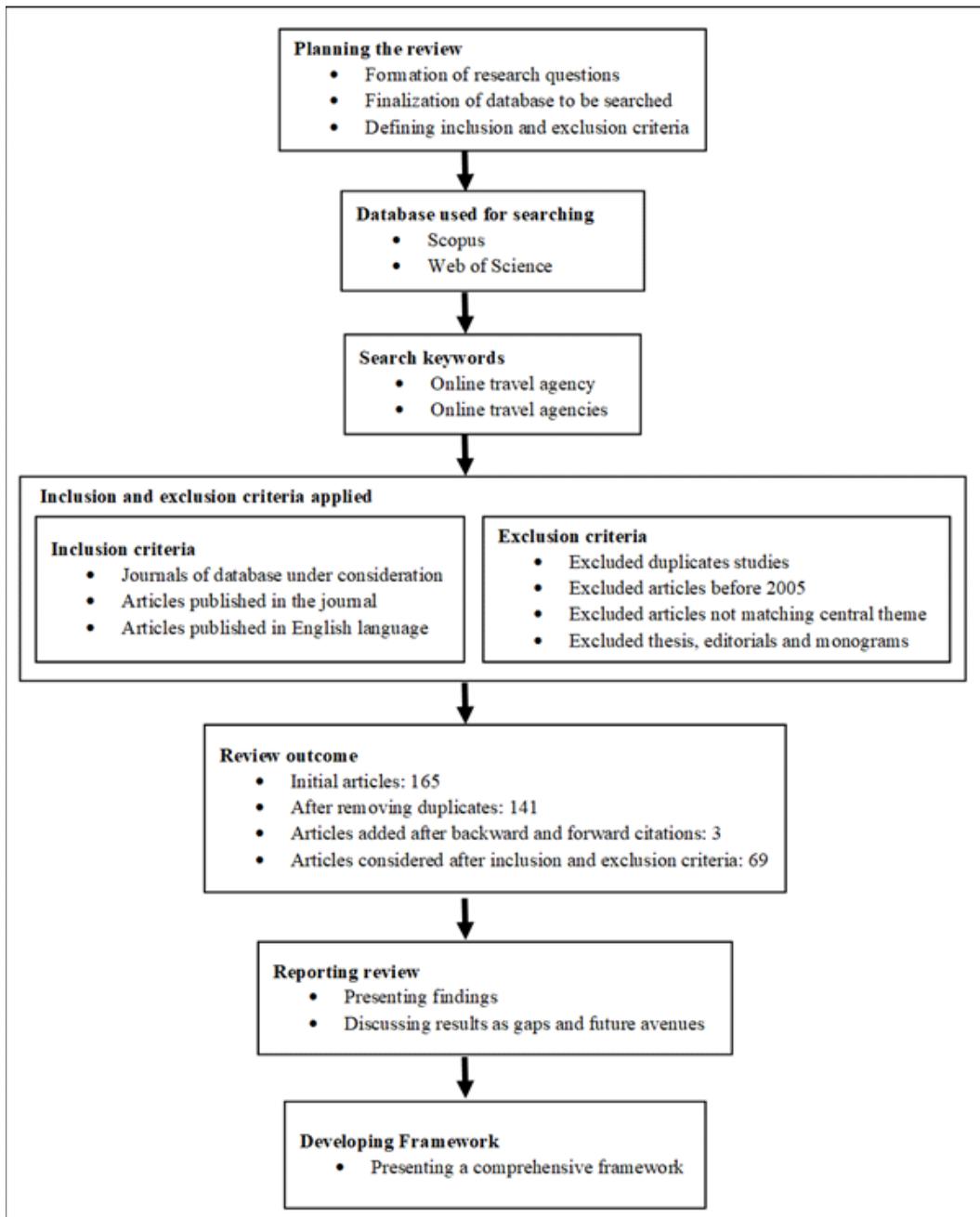
In conjunction with prior SLRs, the authors conducted this study in three main stages (Kitchenham & Charters, 2007; Tranfield et al., 2003;), including planning, executing, and reporting the review (Figure 1). The authors determined planning the review, study objectives, research questions, appropriate databases, and article selection (i.e., inclusion and exclusion) criteria. The inclusion criteria ensured that all “English” language “articles” in sync with the searched keywords “online travel agency” and “online travel agencies” and present in Scopus and Web of Science “journals” were included for further analysis. The exclusion criteria ensured that duplicates or similar studies, studies before the year 2005, studies not matching the central theme under research, and thesis, editorials, and monographs were excluded from further analysis. This was followed by the execution of the review, which involved keyword searches through predetermined databases and curation of relevant studies. The final stage dealt with reporting the review results, including the research profile, emergent themes, gaps, and future research agendas.

### Planning and Execution

The authors defined three distinct RQs to obtain appropriate and detailed insights from the research profile, thematic analysis, and discussion of the gaps and limitations of prior studies. In accordance with the RQs and objectives, the authors considered utilizing “online travel agency” and “online travel agencies” as the keywords. They deliberately chose these broad keywords to enhance the inclusivity of the search results and adopt a broad scope of review for prior research that could be appropriate for this SLR. The authors considered two popular databases, namely Scopus and Web of Science, for conducting the keyword search to extract relevant studies. They chose these databases as they are popular among scholars due to their representation of extensive scientific and interdisciplinary information (Yeung, 2019). The researchers executed the keyword search by searching the title, abstract, and keywords of the studies indexed in these databases, leading to the initial identification of 316 studies. Subsequently, these results underwent an initial screening to ensure the appropriateness and effectiveness of the search strategy and results (Zhang et al., 2011), which led to the exclusion of 168 articles. The authors screened the full text of 148 remaining articles in accordance with the predetermined inclusion and exclusion criteria (Figure 1) to determine relevant studies for further analysis (Rowley & Slack, 2012; Torsello et al., 2012), leading to the removal of 45 articles from further consideration. Additionally, they excluded 24 articles at this stage, as they considered these articles out of the scope of their SLR. Further, the researchers used the ABS ranking measure to assess the source of the remaining 79 articles to ensure that the results represent high-quality studies. They considered only those articles published in ABS ranked journals (Title & Review, 2018), and excluded 13 articles for not meeting this criterion. Lastly, they conducted citation chaining (forward and backward) to complete the feedback loop for the remaining articles. Citation chaining led to the identification of three articles that met the article selection criteria, and the final dataset for this research thus included 69 studies.

Then, the authors utilized content analysis to comprehensively examine and discuss the gaps prior studies had addressed, their findings, limitations, and suggested future research directions. Content analysis is preferred for organizing and eliciting meaning from qualitative data in order to draw realistic and logical conclusions (Bengtsson, 2016). Furthermore, it helps develop theories, schematic models, and conceptual frameworks (Assarroudi, 2018). Subsequently, the authors used the derived insights from thematic content analysis to ascertain the appropriate scope for future research, which two researchers performed independently. The authors amalgamated the findings of both researchers based on mutual agreement to explicate the final research themes and pertinent discussion they presented in this study.

Figure 1. The protocol for systematic literature review



## Research Profile

The authors conducted a descriptive dataset analysis to explicate the current research profile in this field. Their examination of the annual scientific production of relevant studies suggested a surge in the number of studies pertaining to OTAs from 2016 onwards (Figure 2). However, the examination of the trend on the average number of citations suggested that the highest numbers of average citations

were registered for the studies of the year 2011, that is, the studies published in the year 2011 are cited by most authors (Figure 5). Thus, the authors concluded that studies published in 2011 may provide a foundational basis for further research in the field.

Rob Law (Hong Kong) was found to be the most productive author in terms of the number of contributions to the dataset (Figure 3), and the *International Journal of Contemporary Hospitality Management* is the leading outlet for these publications (Figure 4). In terms of the geolocation of leading authors of curated studies, the United States emerged as the leading geographical base of such authors (Figure 6). The region-wise collaboration depicts the cross-geographical research in the OTA literature, wherein the bubble size determines the magnitude of the research done in the specific regions, while the linking lines depict the region-wise collaboration (Figure 7). The USA, China, and South Korea have the highest number of author collaborations. This depiction suggested that, in terms of authors, developed economies may be leading the foray into OTA-related research.

Additionally, the geographic scope of research for curated studies suggested that scholarly focus on OTAs has been primarily relegated to Europe, some parts of Asia, North and South America, and Australia (Figure 8). This indicates a distinct gap in geographic focus in OTA research, due to a lack of focus on developing economies that are being acknowledged as emergent tourist destinations, such as India, Vietnam, and Cambodia.

The authors examined the word clouds based on the author keywords and the selected studies' titles (Figure 9), which gave an overview of the commonly used keywords in the prior literature. These keywords reflect primary areas of applications and topics addressed in research pertaining to OTAs. The word clouds suggest that, on one hand, most of the studies concentrated on topics involving "travel, hotel, booking, and tourism suggesting management" as one of the themes of study, and "reviews, satisfaction, and loyalty" as another theme dealing with behavioral aspects of customers. The word clouds evidence the researchers' interest till now while investigating OTAs.

Figure 2. Scientific production of the studies

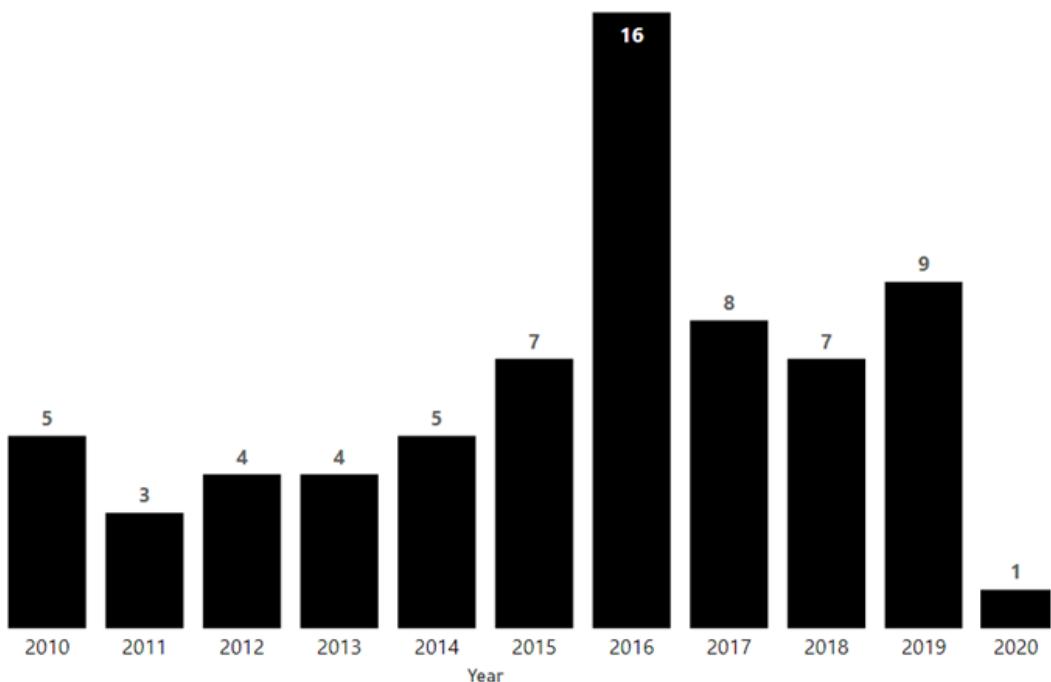


Figure 3. Average citations of studies per year

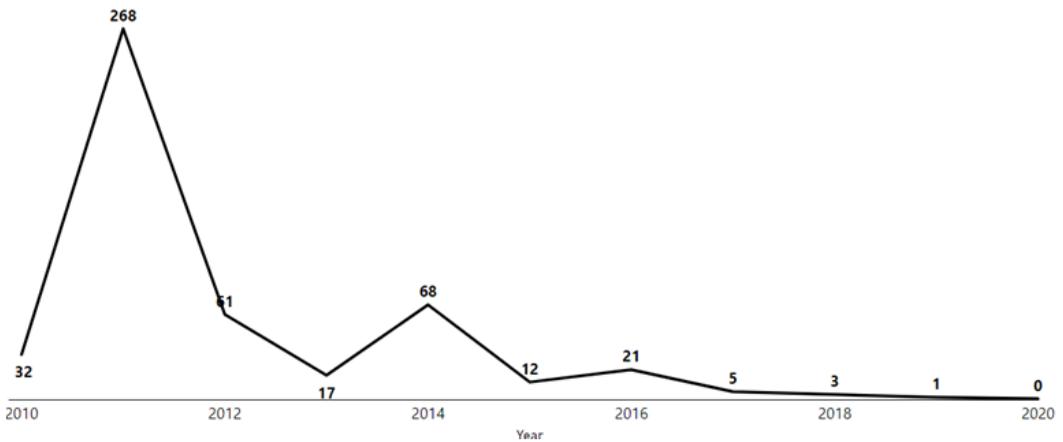
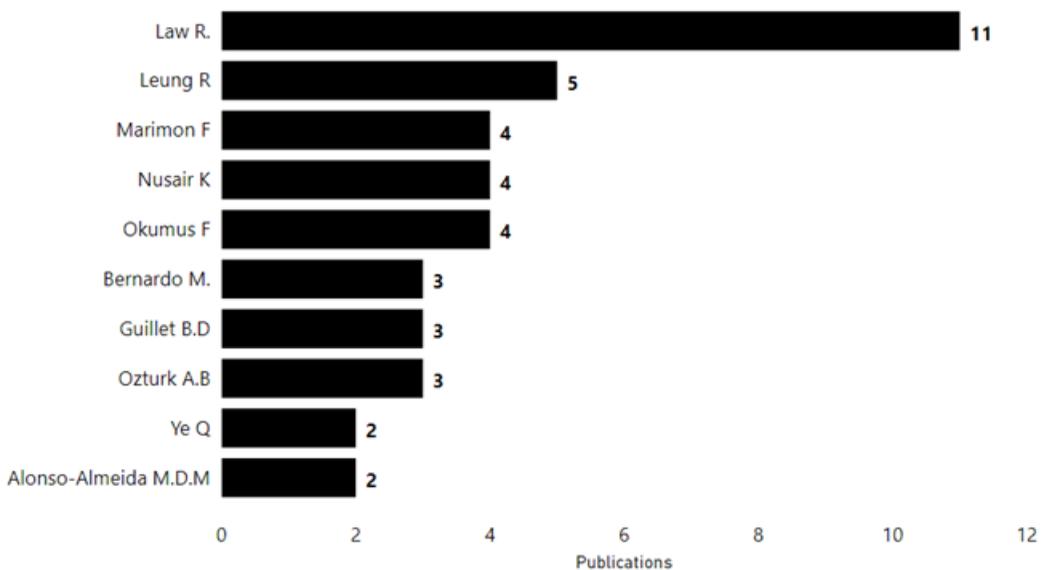


Figure 4. The most productive authors



## RESULTS

OTAs are continuously growing and evolving, and there is a need for effective Web sites and mobile applications that can increase traffic. The authors' thorough previous literature review on OTAs led to a comprehensive and consistent framework comprising six main components. Every element of the comprehensive framework is associated with the other (Figure 10).

Based on the SLR, the framework shows the role of three major stakeholders of OTAs, including consumers/ travelers, establishments, and online agencies. The travelers or consumers can be individual travelers and a group of individuals like family, peers, and business travelers. Similarly, the owners and the management staff of any lodging or establishment can be a part of travel services, including hotels or airlines. Travel booking agencies include online and offline booking establishments of any travel or tourism service availed by a traveler and play a crucial role in ensuring service quality.

Figure 5. The most productive journals

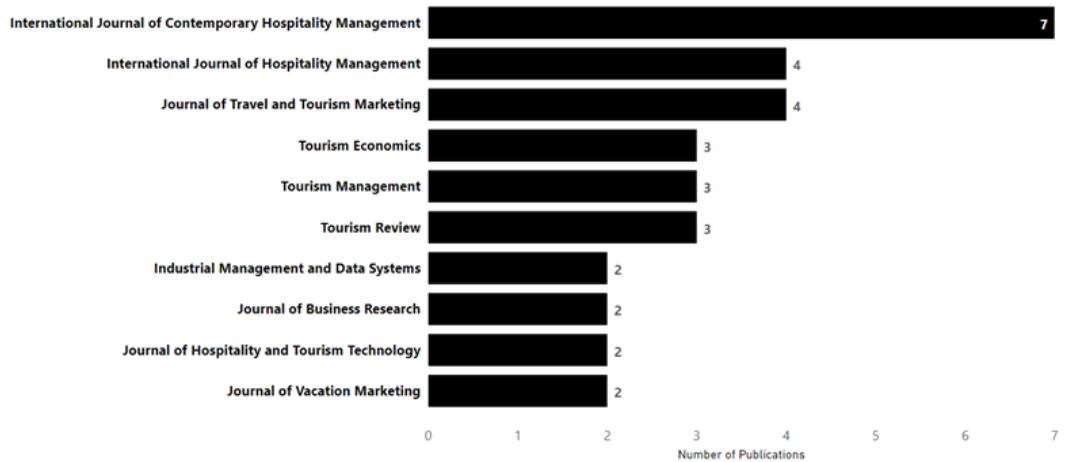
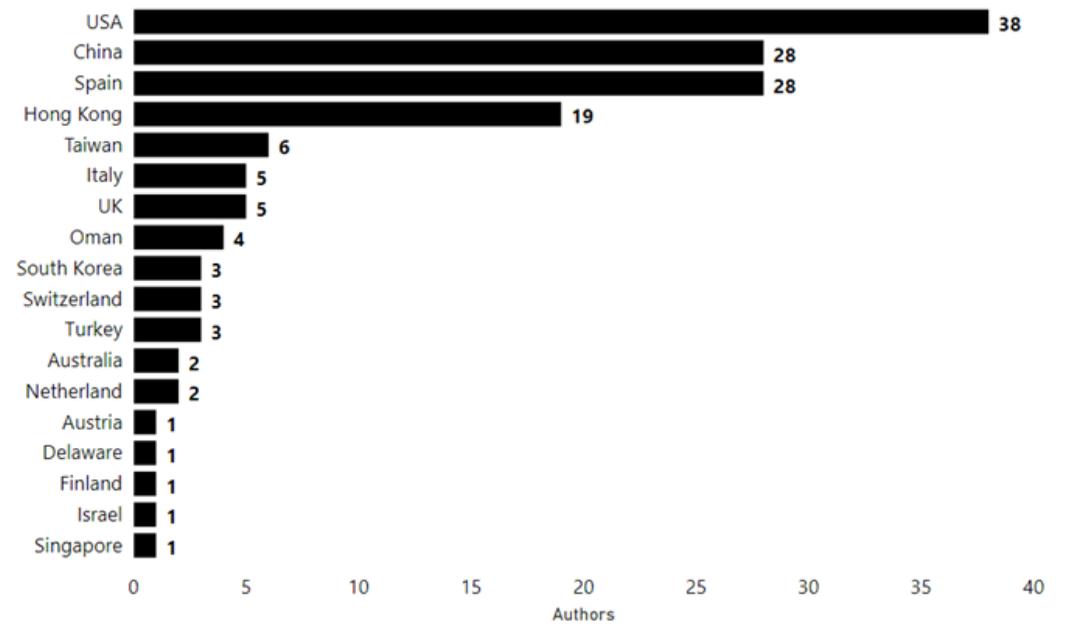


Figure 6. Geolocation (country) of the first author



Online travel booking convenience reflects the social interaction between reviewers, tourists, and hoteliers, representing a social relationship (Hou et al., 2019). The continuously growing market and popularity of different OTAs bring in healthy competition, providing the customers a variety of choices and making the entire booking experience easy.

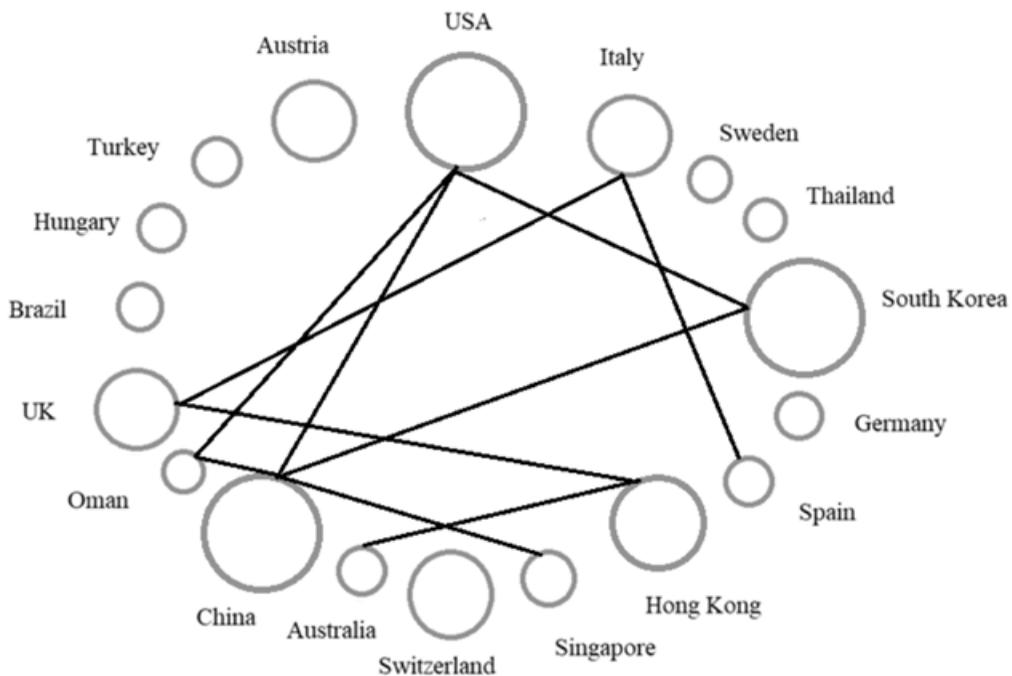
### Dependent Variables

The three main dependent variables that the authors found to impact the OTA functioning are customer satisfaction, customer loyalty, and repurchase intention. These dependent variables are a result and are influenced by factors such as customer attitude, lifestyle, service quality and hedonic value, perceived

Figure 7. Country-Wise presentation of research studies



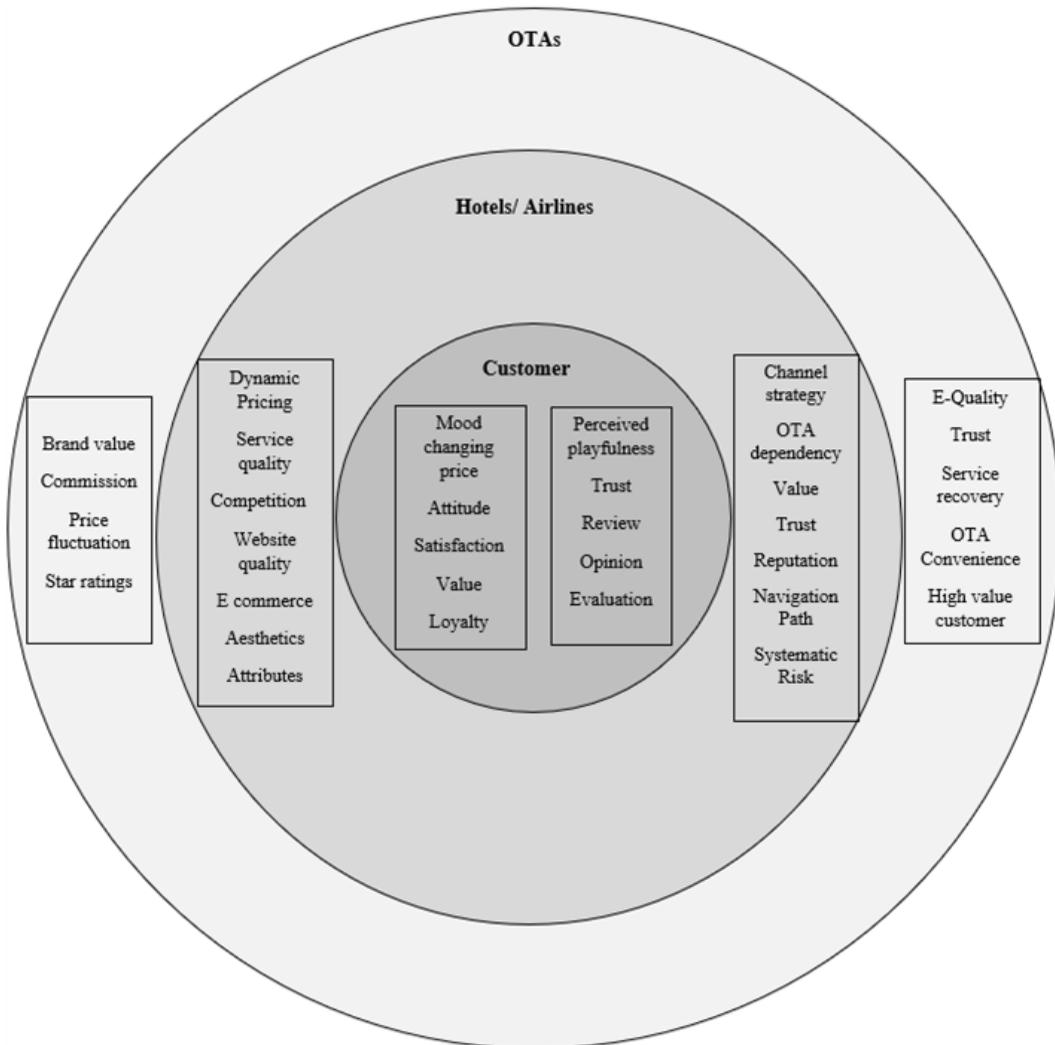
Figure 8. Collaboration between authors by country



benefit, perceived risk, and brand trust. The prior literature proved that customer satisfaction directly results from customer attitude and perceived service quality (Ali, 2016; Chang et al., 2018; Sun et al., 2020). Loyalty has been considered an essential variable in terms of customers and establishments. According to Albayrak et al. (2019) and Ozturk et al. (2017), Web site quality, service experience, and customer brand trust, which is a mediating variable, are the factors that influence the brand loyalty



Figure 10. Comprehensive framework



recovery, and (iii) brand value. Berbegal-Mirabent et al. (2016) explained that a travel agency's overall review and rating are mainly impacted by the quality of its website and online customer interaction. The service recovery (online and offline) and the responsiveness help the agencies to position themselves uniquely (Kirillova & Chan 2018). Ha and Janda (2016) highlighted that brand value is created through customer trust and loyalty gained through past booking experiences.

### Moderating Factors

In prior studies, scholars deeply analyzed OTAs on the factors that form the basis of dependencies of the final result by deciding its intensity. The authors' SLR allowed for enough moderating variables that can affect customers' response towards the OTAs, such as geographical location of travel, familial influences while booking, and customer's knowledge of competitive factors of different OTAs. They provide an effective measure of a particular customer's behavior towards the OTAs and their choice of selection, getting affected by their exposure to a certain environment. For example, prior studies proposed that customer demographics such as age, gender, and income groups are some of the variables

that affect the strength of the relationship between customer expectation and booking intentions (Gao & Bai, 2014). Also, customer or electronic word-of-mouth moderates purchase decisions (Lin & Lu, 2010). Further variables such as past service experiences and perceived risk are other factors that moderate the relationship between customers' buying intention and final purchase (Albayrak et al., 2019; Belarmino & Koh, 2018).

### **Control Factors**

The study proposes some variables that act as constant factors while making purchase decisions. The variables include hotel aesthetics, customer demographics, and the day and time of stay or booking, which are the control variables. For example, the arrival day's control variable can determine the booking cancellation outcome, which is otherwise dependent on bookings or seasonal bookings (Falk, 2018). Further, the online displayed visual esthetics plays a crucial role in controlling the impact of factors such as expected service quality on the intention to make a booking (Kirillova & Chan, 2018).

## **DISCUSSION**

Thematic content analysis of the curated studies resulted in the development of five broad research themes. The authors discussed the themes from the point of view of three stakeholders, namely, customers, service providers (i.e., hotels and airlines), and OTAs. Additionally, they developed a comprehensive framework (Figure 10) in the *Results* section to highlight the individual attributes of these stakeholders.

### **Customer Purchase Decisions**

Prior literature examined different variables influencing the consumer's buying decision concerning OTAs. Davidson et al. (2011) demonstrated the importance of the esthetic value of tangible characteristics before the service encounter, which offers customers a quality clue of the stay. According to Gao and Bai (2014), OTAs establish online customer experience through Web atmospherics to evoke purchase intention and improve satisfaction.

Bernardo et al. (2013) explained that OTAs tend to create a balance between equality and service recovery parameters to build customer satisfaction, further influencing customer loyalty. Moreover, Bernardo et al. (2012) examined that equality creates the customers' perceived value through functional and hedonic attributes, which helps them evaluate and choose among the alternatives. Torres et al. (2013) suggested that service quality is an antecedent of satisfaction that influences behavioral intention and is reflected through online reviews based on perceived quality.

Sun et al. (2020) identified the mediating role of customer attitude and perceived behavioral control between mobile usability and satisfaction, and proposed OTAs to assure the convenience and speed of the mobile service to establish a positive perception. Ozturk et al. (2016) found that customers seek easy online navigation and a convenient experience; therefore, marketers should focus on user-friendly and intuitive shopping experiences and develop competencies that address customers to develop loyalty. Therefore, Liu et al. (2016) suggested that OTAs can cultivate customer loyalty by improving the likelihood of the customer experiencing flow. In order to increase consumers' likelihood of purchasing, Chen et al. (2017) suggested that opaque-selling Web sites should cautiously select the Web site display information and enhance communications with the consumers.

### **Gaps and Limitations**

Although the evaluations and observational techniques through interventions on the test segments are proven to be of significant benefit, some gaps exist in prior research in these aspects. Firstly, there are insufficient studies on the efforts made by the OTAs and travel firms for high-value customers to target customer loyalty and build respective loyalty programs. Secondly, only service recovery concerning OTA was explored, and no attempts are made in the context of independent hotels. Further,

only mobile-based bookings and payments were observed, and results were established on that basis (Sun et al., 2020). Scholars highlighted this gap in the prior literature, that is, the geographical origin of the sample of existing studies prevents the generalizability of the study results (Berbegal-Mirabent et al., 2016; Bernardo et al., 2013; Chang et al., 2018; Wang et al., 2019). Further, in prior literature scholars did not examine the issues regarding customer expectations from the use of OTAs as well as the collaboration between OTAs with offline and traditional channels (Ha & Janda, 2016). For example, booking expectations of consumers across different destinations may vary with the type of experience offered, that is, a bundle of services (Ha & Janda, 2016).

### *Avenues for Future Research*

Firstly, future studies should explore the dimensions of OTA and travel firms' efforts on customer retention tactics by measuring frequent repurchase and loyalty. Secondly, the researchers should work on the service recovery methods opted for by the travel firms to retain customers and their impact on customers' online booking choices. Future studies need to examine the cultural, psychological, demographical, and behavioral elements to explore the differences in expectations and attitudes of consumers toward OTAs belonging to different cultural backgrounds (Sun et al., 2020). In addition, future studies need to investigate the effects of characteristics of travel participants in terms of family status (e.g., single participants, couples, and families with children) for more generalized results (Ha, 2016). Ha and Janda (2016) explained the significance of customers' expectations of the service before consumption and suggested that research studies on OTAs should closely monitor the quality perceptions of customers. Gu and Ye (2014) suggested that travel firms should reexamine their resource allocation strategy for online management responses and prioritize their customers according to their satisfaction levels.

### **Online Rating and Reviews**

Prior literature explored the dimension of OTA online visibility and customer involvement (Aureli & Supino, 2017; Belarmino & Koh, 2018). Wang et al. (2016) found that OTA apps users are more likely to use these apps mainly for deals, customer reviews, and hotel searches. Cui et al. (2019) explained that online travel reviews reflect social interaction between reviewers and tourists, which online platforms should take as an advantage to guide more consumers to post high-quality information for an adequate evaluation. The impact of negative reviews, as studied by Thorbjørnsen et al. (2007), is more related to tangible components like room features and buffet, and has a more significant impact than actively positive reviews, which include nontangible components such as personal staff or comfort.

Raguseo et al. (2017) suggested that, to drive higher profit margins, hotels should evolve their practices to engage customers in writing readable and accurate stories of their stay experience rather than merely writing a review. According to Rhee and Yang (2015), travelers with different trip purposes tend to rate each attribute differently; hence, hoteliers should be able to assess the purpose of traveling for each guest beforehand and offer their exclusive attributes in the best condition. The hotel star ratings provided by the OTAs and the customer rating scores assist consumers in identifying hotel service quality and pricing levels. Therefore, star ratings are one of the main factors that facilitate the consumers' selection of a hotel (Leung et al., 2018).

### *Gaps and Limitations*

Prior literature examined the different aspects of customer reviews and ratings as a means to improve service quality (Aureli & Supino, 2017). However, at the same time, it did not include the exploration of many other equally interesting aspects. For example, the effect of specific service clues on customers' moods during service consumption and review is not known, yet. Furthermore, prior studies did not identify the actual number of critics and disparagers of OTAs and their impact on the overall OTA industry. The research investigations involving ratings and reviews/feedback have problems of system unfairness or consumer evaluation bias. A specific sample comprising a particular demographic of

travelers or internal customers can have biased behavior while contributing as reviewers (Stangl et al., 2016). In some studies, the examined reviews were from only one lodging (Belarmino & Koh, 2018), and some studies used manipulated Web site pictures as a forced exposure setting (Chen et al., 2017). This leads to the loss of validity and reliability in some of the results.

### *Avenues for Future Research*

Prior research proposed and suggested many scopes of future research regarding the reviews and rating aspects of OTAs. Firstly, studies in the future could identify the impact of navigation paths and channels on a Web site on the final experience and review provided by the visitor (Hou et al., 2019). Further, future studies can explore the dimension of biases of customer reviews oriented towards particular factors (i.e., tangible or intangible). Also, future studies must investigate the ratings from the perspective of independent hotels, and not through OTAs, to have a factual comparison between them (Belarmino & Koh, 2018). Researchers also suggest that it is essential to explore the concept of acceptance of new instruments of online visibility of OTAs such as social media and customer communities (Agarwal & Mehrotra, 2023; Raguseo et al., 2017; Voino et al., 2024). According to Rhee and Yang (2015), travelers with different trip purposes tend to rate each attribute differently. Hence, researchers should assess the use of traveling purposes and suggest that hoteliers offer their exclusive attributes in the best condition.

### **Revenue Management and Pricing**

Many prior studies examined the effects of pricing on consumer travel preferences and the financial management of OTAs and traditional hotels (Ropero, 2011; Yang & Leung, 2018). Leung et al. (2014) identified that no single OTA channel offered the best price for all high-rated services; hence, consumers are bound to explore different websites to find the best possible rates. Further, Kim et al. (2019) found that the reason for varying consumer travel preferences was the price dispersion among OTAs and, therefore, recommended that OTAs present a range of similar hotel rooms as a part of the parent Web site followed by an exclusive price presentation tactic to offer an attractive price to consumers. Also, Law et al. (2010) highlighted the propositions of lowest fares and shortest durations provided by airlines to tap the new target market of online consumers and influence their search.

Yang and Leung (2018) suggested that OTAs should target exclusive service providers, as there exists a price and discount disparity between online and offline travel agencies, which is influenced by their reputation and consumer base. Ropero (2011) discussed the importance of product differentiation and competition on pricing policy in the hotel industry, identifying the higher probability of price rise with the delivery of high quality. Therefore, as per Lee et al. (2015), OTAs plan appropriate financial management for firm size and spend wisely on advertising expenditures to decrease systematic risks.

Chen et al. (2017) examined the effect of price preferences based on mood intentions (i.e., happy, neutral, and sad) on consumer buying intentions, which are triggered through the mood-threatening cues prompted by commercials in order to expedite the consumer booking process. Varella et al. (2017) discussed the profile regulations and new booking adjustments done by incumbent airlines in competition with low-cost carriers to cater to the target market of new customers. Therefore, as Sun et al. (2015) suggested, establishments can develop new systems to track rate fluctuations across OTAs to ensure the appropriate range of rates and hence provide the best rate.

### *Gaps and Limitations*

Some of the research evidenced specific issues and disparities of pricing factors. Firstly, the pricing and revenue studies only focused on the OTA perspective. There are few studies on the customers' price perspective and expectation factors. Secondly, prior research focused only on OTAs' competitive and dynamic pricing. The best price offered is yet to be explored.

Further, in some studies, the pricing behavior of OTAs resembled only a Web site, creating a perplexity in the pricing information (Chen et al., 2017). Also, there existed price variability for

different e-service platforms, even for similar rated hotels, making it difficult to generalize the price and value different OTA Web sites offered to the customers (Chen et al., 2017). In the studies on the pricing premiums and ceilings, the researchers measured the price parity of channels across a short period (e.g., months); therefore, it cannot be generalized (Sun et al., 2020).

### *Avenues for Future Research*

Future research should be focused on analyzing the OTAs by identifying the methods they use for price comparisons. Similarly, research is necessary on the ways OTAs can implement to compete and propose the best price of similar rated hotels/airlines. Further, future research should investigate the customer's perspective on price selection and its relationship with service quality. There is a rising need to study the relative pricing methods of online and offline travel agencies impacting customer decision diversification (Yang & Leung, 2018). Finally, future research needs to investigate the interaction and effects between cross-channel and dynamic pricing using a more comprehensive approach and a large sample size (Yang & Leung, 2018).

### **Web Site Effectiveness and Experiences**

In extant literature, scholars examined the influence of OTA Web site interactivity, functionality, and convenience on customers' buying decisions and experiences (Cao & Yang, 2016; Ye et al., 2019). They highlighted the significance of Web site quality in design, information, gratification, and rewarding dimensions and its relationship with hedonic value, customer trust, and loyalty (Albayrak et al., 2019). As Li et al. (2015) discussed, Web site navigation paths act as an essential parameter for travel planning. There is a need for training in advanced online marketing techniques, such as search engine marketing, to identify navigation patterns followed during travel planning. Moreover, Cao and Yang (2016) suggested that hotel managers should compare distinct features of tourism Web sites to determine the aspects of Web sites that need improvement to improve customer experience.

Ali (2016) found that, since the perceived flow acts as a mediator between hotel Web site quality and customer satisfaction, hotel managers can allocate resources to develop a high-quality Web site flow to generate customers' favorable feelings. Hsu et al. (2012) identified that Web site quality acts as a stimulus to enjoyable and exciting experiences on the Internet, which leads to positive buying behavior and satisfaction of customers. Ye et al. (2016) suggested ways of Web site quality improvements by identifying the performance attributes that contribute to customer satisfaction or dissatisfaction. To improve customer experience, Ye et al. (2019) suggested that personalized marketing efforts and brand enhancement are essential to cultivating brand preferences and creating a loyal consumer base.

### *Gaps and Limitations*

Extant literature focused mainly on attributes offered by OTA Web sites and not on mobile apps. Also, very few studies described the associations of Web site attributes with respect to the correlation and interdependencies between OTAs and independent hotels, such as displaying add-on services (e.g. laundry, pick up and drop). Prior literature provided an analysis of the association between Web site quality, interactivity, functionality, user experience, and purchase decisions (Ali, 2016; Ye et al., 2019). However, in comparison to this, the association between customer Web site visits and actual purchasing is not known, even though patterns of navigation paths followed by customers on the travel booking websites is known (Li et al., 2015). Similarly, the association between Web design and performance metrics, such as conversion rate, is unknown (Mcdowell et al., 2016).

### *Avenues for Future Research*

Future studies should focus on the effectiveness and attributes of the OTA mobile apps, as scholars conducted research only on Web site attributes. Secondly, the visibility of comparisons of prices and service quality between similar hotels and their promotional dependencies on OTA Web sites should be explored. Also, there is a need for effective Web site operations for travel agencies concerning quality

and ease of use, helping customers make wise purchase decisions that lead to delightful experiences. Future research should investigate other functional features of Web sites that may influence consumer brand experience (Ye et al., 2019). Future studies should also explore the effect of Web site brand image on loyalty and other variables (Albayrak et al., 2019). Further research can determine the effect of e-quality and e-recovery (i.e., online FAQs, chatbots, and contact centers) on consumer behavior (e.g., satisfaction and e-word of mouth) (Määttä, 2007).

### **Channel Sales, Distribution Strategies, and Social Media Presence**

Prior literature has explored various channel integrations and the choices customers witness while booking a travel service for the most suitable option. (Stangl et al., 2016) presents a view of the co-dependencies of OTAs and hotels by suggesting that OTAs should not take control over the hotel's core service and, later, should develop exclusive marketing strategies by setting up effective loyalty programs. Another dimension of co-functionalities was discussed by Masiero and Law, (2016) by comparing the significance of both direct and indirect channels (OTAs and Destination marketing organizations) of travel and tourism and their influence on customers' final purchase.

The causal factors that influence online channel selection are discussed by Castillo-Manzano and López-Valpuesta, (2010). Their study suggests that demographic and behavioral factors are responsible for channel preference, and with the advent of information technology, the internet has a clear sway in impacting customer evaluation. Beritelli and Schegg, (2016) discuss the hoteliers' dilemma of selecting an OTA channel from countless OTAs, suggesting that hoteliers must raise their presence on different OTA channels to optimize money and resources and increase market coverage. Meanwhile, Inversini and Masiero (2014) highlight the importance of online and social media existence for hoteliers to foster sales through a professional, coherent, consistent presence enhancing human and technological resources.

### ***Gaps and Limitations***

A smaller number of studies explored the relationship and dependencies between hotels and OTAs. There is a need to address the interdependency of all the online and offline channels and their cross-functionalities for an in-depth understanding of the rising collaborative markets, in order to help hoteliers successfully distribute their services globally through OTAs (Stangl et al., 2016). Undoubtedly, prior studies explored the dimensions of different online distribution channels, strategies, and online visibility of tourism firms and services (Castillo-Manzano & López-Valpuesta, 2010). However, these studies explain the distribution and social media presence only through the hotels' and consumers' perspectives, not the OTA's perspective.

### ***Avenues for Future Research***

The subject of research on OTAs is dynamic and always changing, due to shifts in customer preferences and technology. There are several avenues in which future studies related to OTAs can be undertaken.

Future studies in this area can examine the ways in which design features, user interface, and user experience affect consumer satisfaction and the reservation process. Research on the efficacy of chatbots, mobile app interfaces, and personalization features may fall under this category.

Future studies may focus on online channel distribution and customer preferences concerning OTAs. Also, customers' expectations while selecting a particular OTA website or app for travel and booking must be explored.

Researchers could examine how machine learning and AI may improve chatbots, recommendation engines, and personalization on OTAs. It is critical to comprehend how AI can be used to enhance consumer experiences and boost conversions. Research on how OTAs might maximize the large volume of data they get in the areas of data analytics and big data is needed. Predictive analytics, pricing tactics, demand forecasting, and comprehension of consumer behavior can all be included in this.

An additional study could identify the connection between online and offline channels, particularly from the consumer's viewpoint, to provide further insights (Beritelli & Schegg, 2016). Also, as per Inversini and Masiero (2014), future research can focus on leveraging social media communication and exposure (e.g., real-time booking and experience customization) to sell rooms online as the integration of offline and online channels.

Lastly, researchers can examine the aspects that consumers consider while selecting an OTA, such as social media impact, brand loyalty, and reviews and ratings. They can look into how consumer behavior on OTAs is affected by worries about security and trust. This covers problems with bogus listings, data privacy, and online payment security.

## **IMPLICATIONS**

This study concluded with various theoretical and practical implications for the service providers, scholars, and practitioners engaged in the tourism and hospitality industry.

### **Theoretical Implications**

The authors explored extant literature on OTAs to give a holistic overview of the prior research. It is a benchmark for the hotel industry to adopt e-services and balance offline and online service experiences (Yang & Leung, 2018). The theoretical implications of this study are as follows:

1. The study presented the research profile of prior literature on OTAs, which indicates some of the important statistics related to the knowledge structure, namely the progression of the publications according to year, top contributing authors, and journal publishers. Therefore, the study motivates the researchers by presenting the scope of research on the growing domain of OTAs. Further, the study contributes a newer perspective on traditional tourism Web sites and OTAs by providing a thematical review and synthesis of the advancements made in the field of online tourism. Furthermore, the study identifies the areas that still require an in-depth analysis.
2. The study provides a conceptual framework with respect to customers, establishments, and OTAs. The authors developed the framework based on the different insights obtained from the SLR. Therefore, this framework contributes to the overall OTA functioning and considers the viewpoint of all three dimensions to provide a 360-degree view of the OTAs.
3. The gaps identified by the SLR provide a direction for future researchers to explore the OTA domain with the perspective of interdependency of OTAs and travel establishments, as very few studies exist on this perspective. The researchers need to study the collaborative functioning of both online and offline distribution channels.
4. The study will act as a stimulus for research to explore the different aspects of OTAs further, since it highlighted the core areas of improvement (i.e., gaps and scope for future research). Furthermore, scholars can use the gaps, limitations, and recommendations the authors identified in this research to contribute to the unexplored aspects of OTAs effectively.

### **Practical Implications**

1. Managers, practitioners, service providers, and hoteliers can draw inspiration from the findings of this SLR to enhance the online presence of their businesses. They can focus on increasing Web site intractability, content information, reviews and feedback, and utilitarian and hedonic attributes related to customer stay. This will help the tourism and hospitality industry, in general, to achieve customer trust and enhance the overall customer experience and satisfaction level.

2. Practitioners can focus on the identified gaps and scope of future research to create personalized customer experiences. Furthermore, firms should better understand customer expectations and serve them accordingly.
3. The study will help the tourism establishments identify the right stakeholders, especially the profitable customers, as it focuses on OTA functioning concerning customer orientations, highlighting the factors of demography, location of travel, and purchasing power. Also, the study provides the pricing and revenue management insights, which can help the firms to optimize their costs in the relevant areas and thus save expenses.

Scholars and practitioners can delve into the unexplored area of cross-functionalities and interdependencies of OTAs by considering a larger sample size.

## CONCLUSION

OTAs play a critical role in promoting growth in the tourism industry. Although the body of literature on this topic is rising, it is fragmented and chaotic. This study mapped and unified the essential features of the OTA area based on a thorough literature review. The study identified the research profile, primary core research themes, gaps, and limitations in the preceding literature. Future study directions include travel companies' efforts to improve client retention tactics by assessing repurchase and loyalty, implementing service recovery methods, and examining disparities in consumer expectations and attitudes between cultures.

## Limitations

This study has three main limitations, which researchers should address in future studies. First, in their review, the authors found 69 relevant studies. However, more articles could find a fit in the study, if the inclusion criteria were broadened. For example, this study did not include conference papers, review articles, and dissertation and conceptual papers. Second, the study focused only on quantitative studies. Examining the qualitative studies might have provided richer insights into the different aspects of OTAs. Thirdly, the authors restricted the identification and selection of studies to only two databases, namely, Scopus and Web of Science; more databases could be referred for study collection. Despite these limitations, the study allowed to better understand the knowledge structure of prior literature on OTAs.

## Future Research Directions

Future research can focus on a variety of issues in order to broaden the scope of OTAs. Future research could determine the impact of navigation paths and channels on the OTA Web site on the visitor's overall experience and evaluation. Furthermore, researchers may investigate the concept of OTA acceptability of new online exposure instruments, such as social media and customer communities. There is a growing need to investigate how online and offline pricing systems affect client choice diversification. Future research should look into the customer's view of pricing choices and how it relates to service quality. There is a need to research effective Web site operations for travel companies in terms of quality and convenience of use, assisting customers in making sensible purchasing selections that lead to pleasurable experiences. Other functional elements of Web sites that may influence consumer brand experience should be investigated in future studies. Future research should look into the impact of Web site brand image on customer loyalty. More study may be conducted to establish the impact of e-quality and e-recovery, such as online FAQs, chatbots, and contact centers, on consumer behavior such as satisfaction and e-word of mouth. A future study could establish the connection between online and offline channels, particularly from the consumer's perspective, to provide more insights. Furthermore, future study might concentrate on utilizing social media communication and exposure to offer rooms online as a means of integrating offline

and online channels. Studies in these areas can help academics examine the OTA in greater depth and contribute to its growth.

### **CONFLICTS OF INTEREST**

We wish to confirm that there are no known conflicts of interest associated with this publication and there has been no significant financial support for this work that could have influenced its outcome.

### **FUNDING STATEMENT**

No funding was received for this work.

## REFERENCES

- Afaq, A., Gaur, L., Singh, G., & Dhir, A. (2023). COVID-19: Transforming air passengers' behaviour and reshaping their expectations towards the airline industry. *Tourism Recreation Research*, 48(5), 800–808. doi:10.1080/02508281.2021.2008211
- Agarwal, R., & Mehrotra, A. (2023). Work-stress content analysis using social media data. *FIIB Business Review*, 0(0). doi:10.1177/23197145231167995
- Agarwal, R., Mehrotra, A., & Misra, D. (2022). Customer happiness as a function of perceived loyalty program benefits: A quantile regression approach. *Journal of Retailing and Consumer Services*, 64, 102770. doi:10.1016/j.jretconser.2021.102770
- Agarwal, R., Mehrotra, A., Sharma, V., Papa, A., & Malibari, A. (2023). Over-the-top (OTT) retailing in the post pandemic world: Unveiling consumer drivers and barriers using a qualitative study. *Journal of Retailing and Consumer Services*, 75(November), 103529. doi:10.1016/j.jretconser.2023.103529
- Ahn, T., Ryu, S., & Han, I. (2007). The impact of Web quality and playfulness on user acceptance of online retailing. *Information & Management*, 44(3), 263–275. doi:10.1016/j.im.2006.12.008
- Albayrak, T., Karasakal, S., Kocabulut, Ö., & Dursun, A. (2019). Customer loyalty towards travel agency websites: The role of trust and hedonic value. *Journal of Quality Assurance in Hospitality & Tourism*, 0(0), 1–28.
- Albayrak, T., Karasakal, S., Kocabulut, Ö., & Dursun, A. (2020). Customer loyalty towards travel agency websites: The role of trust and hedonic value. *Journal of Quality Assurance in Hospitality & Tourism*, 21(1), 50–77. doi:10.1080/1528008X.2019.1619497
- Ali, F. (2016). Hotel website quality, perceived flow, customer satisfaction and purchase intention. *Journal of Hospitality and Tourism Technology*, 7(2), 213–228. doi:10.1108/JHTT-02-2016-0010
- Ampountolas, A., & Chiffer, E. (2022). Will blockchain shift online travel agencies toward growth or to an end? *Tourism Economics*, 28(5), 1342–1347. doi:10.1177/1354816620985371
- Assarroudi, A., Heshmati Nabavi, F., Armat, M. R., Ebadi, A., & Vaismoradi, M. (2018). Directed qualitative content analysis: The description and elaboration of its underpinning methods and data analysis process. *Journal of Research in Nursing*, 23(1), 42–55. doi:10.1177/1744987117741667 PMID:34394406
- Aureli, S., & Supino, E. (2017). Online reputation monitoring: An exploratory study on Italian hotel managers' practices. *International Journal of Hospitality & Tourism Administration*, 18(1), 84–109. doi:10.1080/15256480.2016.1264903
- Aznoli, F., & Navimipour, N. J. (2017). Deployment strategies in the wireless sensor networks: Systematic literature review, classification, and current trends. *Wireless Personal Communications*, 95(2), 819–846. doi:10.1007/s11277-016-3800-0
- Barthell, J., & Perret, S. (2015, July). *OTAs: A hotel's friend or foe?* HVS. www.hvs.com
- Behera, R. K., Bala, P. K., & Dhir, A. (2019). The emerging role of cognitive computing in healthcare: A systematic literature review. *International Journal of Medical Informatics*, 129(February), 154–166. doi:10.1016/j.ijmedinf.2019.04.024 PMID:31445250
- Belarmino, A. M., & Koh, Y. (2018). How E-WOM motivations vary by hotel review website. *International Journal of Contemporary Hospitality Management*, 30(8), 2730–2751. doi:10.1108/IJCHM-02-2017-0055
- Belias, D., Trivellas, P., & Koustelios, A. (2017). Tourism, culture, and heritage in a smart economy, 189–205. 10.1007/978-3-319-47732-9
- Bengtsson, M. (2016). How to plan and perform a qualitative study using content analysis. *NursingPlus Open*, 2, 8–14. doi:10.1016/j.npls.2016.01.001
- Beregal-Mirabent, J., Mas-Machuca, M., & Marimon, F. (2016). Antecedents of online purchasing behaviour in the tourism sector. *Industrial Management & Data Systems*, 116(1), 87–102. doi:10.1108/IMDS-05-2015-0213

- Beritelli, P., & Schegg, R. (2016). Maximizing online bookings through a multi-channel-strategy: Effects of interdependencies and networks. *International Journal of Contemporary Hospitality Management*, 28(1), 68–88. doi:10.1108/IJCHM-07-2014-0326
- Bernardo, M., Llach, J., Marimon, F., & Alonso-Almeida, M. M. (2013). The balance of the impact of quality and recovery on satisfaction: The case of e-travel. *Total Quality Management & Business Excellence*, 24(11–12), 1390–1404. doi:10.1080/14783363.2013.799327
- Bernardo, M., Marimon, F., & Alonso-Almeida, M. D. M. (2012). Functional quality and hedonic quality: A study of the dimensions of e-service quality in online travel agencies. *Information & Management*, 49(7–8), 342–347. doi:10.1016/j.im.2012.06.005
- Bigne, E., Chatzipanagiotou, K., & Ruiz, C. (2020). Pictorial content, sequence of conflicting online reviews, and consumer decision-making: The stimulus-organism-response model revisited. *Journal of Business Research*, 115, 403–416. doi:10.1016/j.jbusres.2019.11.031
- Brunger, W. G. (2010). The impact of the Internet on airline fares: The Internet price effect. *Journal of Revenue and Pricing Management*, 9(1–2), 66–93. doi:10.1057/rpm.2009.35
- Buhalis, D., & Moldavska, I. (2022). Voice assistants in hospitality: Using artificial intelligence for customer service. *Journal of Hospitality and Tourism Technology*, 13(3), 386–403. doi:10.1108/JHTT-03-2021-0104
- Burgess, C., Tennent, C., Vass, G., Guenther, J., Lowe, K., & Moodie, N. (2019). A systematic review of pedagogies that support, engage, and improve the educational outcomes of Aboriginal students. *Australian Educational Researcher*, 46(2), 297–318. doi:10.1007/s13384-019-00315-5
- Caliskan, S., Kampus, G., Kampus, H., Kimiloglu, H., & Kampus, H. (2013). The contribution of online travel agencies to the profitability of hotels. *Journal of Business and Management*, 3(1), 8–18.
- Calvaresi, D., Ibrahim, A., Calbimonte, J. P., Fragniere, E., Schegg, R., & Schumacher, M. I. (2023). Leveraging inter-tourists interactions via chatbots to bridge academia, tourism industries, and future societies. *Journal of Tourism Futures*, 9(3), 311–337. doi:10.1108/JTF-01-2021-0009
- Cao, K., & Yang, Z. (2016). A study of e-commerce adoption by tourism websites in China. *Journal of Destination Marketing & Management*, 5(3), 283–289. doi:10.1016/j.jdmm.2016.01.005
- Carroll, B., & Sileo, L. (2014). *Online travel agencies: More than a distribution channel*. PhoCusWright.
- Castillo-Manzano, J. I., & López-Valpuesta, L. (2010). The decline of the traditional travel agent model. *Transportation Research Part E, Logistics and Transportation Review*, 46(5), 639–649. doi:10.1016/j.tre.2009.12.009
- Chan, N. L., & Guillet, B. D. (2011). Investigation of social media marketing: How does the hotel industry in Hong Kong perform in marketing on social media websites? *Journal of Travel & Tourism Marketing*, 28(4), 345–368. doi:10.1080/10548408.2011.571571
- Charlton, G. (2019, December 3). *Digital trends in the travel industry: 12 fascinating stats*. Sale Cycle. <https://www.salecycle.com/blog/featured/digital-trends-travel-industry-12-fascinating-stats/>
- Chaudhary, S., Dhir, A., Meenakshi, N., & Christofi, M. (2023). How small firms build resilience to ward off crises: A paradox perspective. *Entrepreneurship and Regional Development*, 1–26.
- Chen, C. C., Xie, K., & Wang, S. (2017). The influence of incidental affect and mood-changing price on online booking intention. *Journal of Hospitality and Tourism Technology*, 8(3), 357–371. doi:10.1108/JHTT-07-2016-0036
- Chen, C. F., & Kao, Y. L. (2010). Relationships between process quality, outcome quality, satisfaction, and behavioural intentions for online travel agencies: Evidence from Taiwan. *Service Industries Journal*, 30(12), 2081–2092. doi:10.1080/02642060903191108
- Choi, Y., Hickerson, B., Lee, J., Lee, H., & Choe, Y. (2022). Digital tourism and wellbeing: Conceptual framework to examine technology effects of online travel media. *International Journal of Environmental Research and Public Health*, 19(9), 5639. doi:10.3390/ijerph19095639 PMID:35565033

- Cooper, B. S., Stone, S. P., Kibbler, C. C., Cookson, B. D., Roberts, J. A., Medley, G. F., Duckworth, G., Lai, R., & Ebrahim, S. (2003). Systematic review of isolation policies in the hospital management of methicillin-resistant. *Health Technology Assessment*, 7(39), 1–194. doi:10.3310/hta7390 PMID:14636487
- Davidson, M. C. G., Mcphail, R., & Barry, S. (2011). Hospitality HRM: Past, present, and the future. *International Journal of Contemporary Hospitality Management*, 23(4), 498–516. doi:10.1108/09596111111130001
- Deb, S. K., Nafi, S. M., & Valeri, M. (2022). Promoting tourism business through digital marketing in the new normal era: A sustainable approach. *European Journal of Innovation Management*.
- Dhir, A., & Srivastava, S. (2023). *Environmental sustainability practices and strategies in the rural tourism and hospitality sector: A systematic literature review and suggestions for future research*.
- Elgarhy, S. D. (2023). Effects of service quality, loyalty programs, pricing strategies, and customer engagement on firms' performance in Egyptian travel agencies: Mediating effects of customer retention. *Journal of Quality Assurance in Hospitality & Tourism*, 24(6), 753–781. doi:10.1080/1528008X.2022.2077889
- Gao, L., & Bai, X. (2014). Online consumer behaviour and its relationship to website atmospheric induced flow: Insights into online travel agencies in China. *Journal of Retailing and Consumer Services*, 21(4), 653–665. doi:10.1016/j.jretconser.2014.01.001
- García, M. A. R. (2013). Effects of competition and quality on hotel pricing policies in an online travel agency. *Tourism Economics*, 19(1), 63–76. doi:10.5367/te.2013.0189
- Granados, N., Kauffman, R. J., Lai, H., & Lin, H. C. (2012). À la carte pricing and price elasticity of demand in air travel. *Decision Support Systems*, 53(2), 381–394. doi:10.1016/j.dss.2012.01.009
- Gupta, S., Modgil, S., Lee, C. K., & Sivarajah, U. (2023). The future is yesterday: Use of AI-driven facial recognition to enhance value in the travel and tourism industry. *Information Systems Frontiers*, 25(3), 1179–1195. doi:10.1007/s10796-022-10271-8 PMID:35529102
- Gursoy, D., Malodia, S., & Dhir, A. (2022). The metaverse in the hospitality and tourism industry: An overview of current trends and future research directions. *Journal of Hospitality Marketing & Management*, 31(5), 527–534. doi:10.1080/19368623.2022.2072504
- Ha, H. Y. (2016). The evolution of brand personality: An application of online travel agencies. *Journal of Services Marketing*, 30(5), 529–540. doi:10.1108/JSM-05-2015-0188
- Halkiopoulos, C., Antonopoulou, H., Gkintoni, E., & Aroutzidis, A. (2022). Neuromarketing as an indicator of cognitive consumer behavior in decision-making process of tourism destination: An overview. In *Transcending Borders in Tourism Through Innovation and Cultural Heritage: 8th International Conference, IACuDiT, Hydra, Greece, 2021* (pp. 679–697). Springer International Publishing.
- Hao, J. X., Yu, Y., Law, R., & Fong, D. K. C. (2015). A genetic algorithm-based learning approach to understand customer satisfaction with OTA websites. *Tourism Management*, 48, 231–241. doi:10.1016/j.tourman.2014.11.009
- Hasnan, L. (2019, July 3). Online travel agents facing disruption. *The Asean Post*. <https://theaseanpost.com/article/online-travel-agents-facing-disruption>
- Hou, Z., Cui, F., Meng, Y., Lian, T., & Yu, C. (2019). Opinion mining from online travel reviews: A comparative analysis of Chinese major OTAs using semantic association analysis. *Tourism Management*, 74(March), 276–289. doi:10.1016/j.tourman.2019.03.009
- Hsu, C. L., Chang, K. C., & Chen, M. C. (2012). The impact of website quality on customer satisfaction and purchase intention: Perceived playfulness and perceived flow as mediators. *Information Systems and e-Business Management*, 10(4), 549–570. doi:10.1007/s10257-011-0181-5
- Inversini, A., & Masiero, L. (2014). Selling rooms online: The use of social media and online travel agents. *International Journal of Contemporary Hospitality Management*, 26(2), 272–292. doi:10.1108/IJCHM-03-2013-0140
- Is, P., That, A. M., The, P., & Design, S. (2016).. . *Stratification, and Subgroups*, (Part I). doi:10.1016/B978-0-12-804217-5.00004-7

- Jain, P., Singh, R. K., Mishra, R., & Rana, N. P. (2023). Emerging dimensions of blockchain application in tourism and hospitality sector: A systematic literature review. *Journal of Hospitality Marketing & Management*, 32(4), 454–476. doi:10.1080/19368623.2023.2184440
- Jo, H., Chung, N., Hlee, S., & Koo, C. (2022). Perceived affordances and regret in online travel agencies. *Journal of Travel Research*, 61(5), 1024–1042. doi:10.1177/004728752111014962
- Kim, D., & Kim, S. (2017). The role of mobile technology in tourism: Patents, articles, news, and mobile tour app reviews. *Sustainability (Basel)*, 9(11), 2082. doi:10.3390/su9112082
- Kim, J., Franklin, D., Phillips, M., & Hwang, E. (2020). Online travel agency price presentation: Examining the influence of price dispersion on travelers' hotel preference. *Journal of Travel Research*, 59(4), 704–721. doi:10.1177/0047287519857159
- Kirillova, K., & Chan, J. (2018). “What is beautiful we book:” Hotel visual appeal and expected service quality. *International Journal of Contemporary Hospitality Management*, 30(3), 1788–1807. doi:10.1108/IJCHM-07-2017-0408
- Kitchenham, B., & Charters, E. (2007). *Guidelines for performing systematic literature reviews in software engineering executive summary*.
- Koo, B., Mantin, B., & O'Connor, P. (2011). Online distribution of airline tickets: Should airlines adopt a single or a multi-channel approach? *Tourism Management*, 32(1), 69–74. doi:10.1016/j.tourman.2009.11.008
- Kracht, J., & Wang, Y. (2010). Examining the tourism distribution channel: Evolution and transformation. *International Journal of Contemporary Hospitality Management*, 22(5), 736–757. doi:10.1108/09596111011053837
- Langford, G., & Weissenberg, A. (2018). *2018 Travel and hospitality industry outlook*. Deloitte. 10.1038/s41598-018-26909-0
- Law, R., Guillet, B. D., & Leung, R. (2010). An analysis of the lowest fares and shortest durations for air-tickets on travel agency websites. *Journal of Travel & Tourism Marketing*, 27(6), 635–644. doi:10.1080/10548408.2010.507159
- Lee, S., Phau, I., Hughes, M., Li, Y. F., & Quintal, V. (2016). Heritage tourism in Singapore Chinatown: A perceived value approach to authenticity and satisfaction. *Journal of Travel & Tourism Marketing*, 33(7), 981–998. doi:10.1080/10548408.2015.1075459
- Lee, W. S., Moon, J., Lee, S., & Kerstetter, D. (2015). Determinants of systematic risk in the online travel agency industry. *Tourism Economics*, 21(2), 341–355. doi:10.5367/te.2013.0348
- Leung, R., Guillet, B. D., & Law, R. (2014). The channel that offers the lowest online room rates: A case study of hotels in Hong Kong. *International Journal of Hospitality & Tourism Administration*, 15(2), 103–120. doi:10.1080/15256480.2014.901050
- Li, J., Yang, M., & Pan, B. (2015). Network analysis of navigation paths of tourists' trip planning and power structure of the online tourism in China. *Asia Pacific Journal of Tourism Research*, 20(February), 1451–1465. doi:10.1080/10941665.2014.998249
- Li, L., Lee, K. Y., Emokpae, E., & Yang, S. B. (2021). What makes you continuously use chatbot services? Evidence from Chinese online travel agencies. *Electronic Markets*, 31(3), 1–25. doi:10.1007/s12525-020-00454-z PMID:35603227
- Liljander, V., & Mattson, J. (2002). Impact of customer preconsumption mood on the evaluation of employee behavior in service. *Psychology and Marketing*, 19(10), 837–860. doi:10.1002/mar.10040
- Lin, L., & Lu, C. (2010). The influence of corporate image, relationship marketing, and trust on purchase intention: The moderating effects of word-of-mouth. *Tourism Review*, 65(3), 16–34. doi:10.1108/16605371011083503
- Ling, L., Guo, X., & Yang, C. (2014). Opening the online marketplace: An examination of hotel pricing and travel agency online distribution of rooms. *Tourism Management*, 45, 234–243. doi:10.1016/j.tourman.2014.05.003
- Liu, X., Mehraliyev, F., Liu, C., & Schuckert, M. (2020). The roles of social media in tourists' choices of travel components. *Tourist Studies*, 20(1), 27–48. doi:10.1177/1468797619873107

- Liu, Y., & Law, R. (2013). The adoption of smartphone applications by airlines. In L. Cantoni & Z. Xiang (Eds.), *Information and communication technologies in tourism 2013* (pp. 47–57). Springer-Verlag. doi:10.1007/978-3-642-36309-2\_5
- Liu, Y., Pu, B., Guan, Z., & Yang, Q. (2016). Online customer experience and its relationship to repurchase intention: An empirical case of online travel agencies in China. *Asia Pacific Journal of Tourism Research*, 21(10), 1085–1099. doi:10.1080/10941665.2015.1094495
- Madanaguli, A., Kaur, P., Mazzoleni, A., & Dhir, A. (2022). The innovation ecosystem in rural tourism and hospitality: A systematic review of innovation in rural tourism. *Journal of Knowledge Management*, 26(7), 1732–1762. doi:10.1108/JKM-01-2021-0050
- Mallett, R., Hagen-Zanker, J., Slater, R., & Duvendack, M. (2012). The benefits and challenges of using systematic reviews in international development research. *Journal of Development Effectiveness*, 4(3), 445–455. doi:10.1080/19439342.2012.711342
- Martin-Fuentes, E., & Mellinas, J. P. (2018). Hotels that most rely on Booking.com: Online travel agencies (OTAs) and hotel distribution channels. *Tourism Review*, 73(4), 465–479. doi:10.1108/TR-12-2017-0201
- Masiero, L., & Law, R. (2016). Comparing reservation channels for hotel rooms: A behavioral perspective. *Journal of Travel & Tourism Marketing*, 33(1), 1–13. doi:10.1080/10548408.2014.997960
- Mcdowell, W. C., Wilson, R. C., Owen, C., & Jr, K. (2016). An examination of retail website design and conversion rate. *Journal of Business Research*, 69(11), 4837–4842. doi:10.1016/j.jbusres.2016.04.040
- Mehrotra, A., & Agarwal, R. (2009). Classifying customers on the basis of their attitudes towards telemarketing. *Journal of Targeting, Measurement and Analysis for Marketing*, 17(3), 171–193. doi:10.1057/jt.2009.14
- Migdadi, Y. K. A. A. (2022). The impact of airline alliance strategy on the perceived service quality: A global survey. *Journal of Quality Assurance in Hospitality & Tourism*, 23(2), 415–446. doi:10.1080/1528008X.2021.1884929
- Minoia, P., & Jokela, S. (2022). Platform-mediated tourism: Social justice and urban governance before and during Covid-19. *Journal of Sustainable Tourism*, 30(5), 951–965. doi:10.1080/09669582.2021.1922426
- More, D., & Thomases, H. (2018). *Working with OTAs.*, (August), 1–29.
- Mumbower, S., Hotle, S., & Garrow, L. A. (2023). Highly debated but still unbundled: The evolution of U.S. airline ancillary products and pricing strategies. *Journal of Revenue and Pricing Management*, 22(4), 276–293. doi:10.1057/s41272-022-00388-5
- O'Connor, P. (2002). An empirical analysis of hotel chain online pricing strategies. *Information Technology & Tourism*, 5(2), 65–72. doi:10.3727/109830502108751055
- Öz, M. (2015). Social media utilization of tourists for travel-related purposes. *International Journal of Contemporary Hospitality Management*, 27(5), 1003–1023. doi:10.1108/IJCHM-01-2014-0034
- Ozturk, A. B., Nusair, K., Okumus, F., & Hua, N. (2016). The role of utilitarian and hedonic values on users' continued usage intention in a mobile hotel booking environment. *International Journal of Hospitality Management*, 57, 106–115. doi:10.1016/j.ijhm.2016.06.007
- Ozturk, A. B., Nusair, K., Okumus, F., & Singh, D. (2017). Understanding mobile hotel booking loyalty: An integration of privacy calculus theory and trust-risk framework. *Information Systems Frontiers*, 19(4), 753–767. doi:10.1007/s10796-017-9736-4
- Paul, I., & Roy, G. (2023). Tourist's engagement in eco-tourism: A review and research agenda. *Journal of Hospitality and Tourism Management*, 54, 316–328. doi:10.1016/j.jhtm.2023.01.002
- Piper, A. R. J. (2013). *How to write a systematic literature review: A guide for medical students*. Research Gate.
- Pop, R. A., Säplăcan, Z., Dabija, D. C., & Alt, M. A. (2022). The impact of social media influencers on travel decisions: The role of trust in consumer decision journey. *Current Issues in Tourism*, 25(5), 823–843. doi:10.1080/13683500.2021.1895729

- Raguseo, E., Neirotti, P., & Paolucci, E. (2017). How small hotels can drive value their way in infomediation. The case of “Italian hotels vs. OTAs and TripAdvisor.” *Information & Management*, 54(6), 745–756. doi:10.1016/j.im.2016.12.002
- Rasmidatta, V. (2022). Role of service innovation in enhancing loyalty to online travel agencies. *KKBS Journal of Business Administration and Accountancy*, 6(3), 1–20.
- Ray, A., & Bala, P. K. (2021). User generated content for exploring factors affecting intention to use travel and food delivery services. *International Journal of Hospitality Management*, 92, 102730. doi:10.1016/j.ijhm.2020.102730
- Reim, W., Parida, V., & Örtqvist, D. (2015). Product-Service Systems (PSS) business models and tactics: A systematic literature review. *Journal of Cleaner Production*, 97, 61–75. doi:10.1016/j.jclepro.2014.07.003
- Rhee, H. T., & Yang, S. B. (2015). How does hotel attribute importance vary among different travelers? An exploratory case study based on a conjoint analysis. *Electronic Markets*, 25(3), 211–226. doi:10.1007/s12525-014-0161-y
- Roger-Monzó, V., Martí-Sánchez, M., & Guijarro-García, M. (2015). Using online consumer loyalty to gain competitive advantage in travel agencies. *Journal of Business Research*, 68(7), 1638–1640. doi:10.1016/j.jbusres.2015.02.009
- Roma, P., Zambuto, F., & Dominici, G. (2015). An empirical analysis of online price dispersion in the Italian airline industry. *International Journal of Electronic Marketing and Retailing*, 6(4), 339–358. doi:10.1504/IJEMR.2015.073481
- Ropero, M. A. (2011). Dynamic pricing policies of hotel establishments in an online travel agency. *Tourism Economics*, 17(5), 1087–1102. doi:10.5367/te.2011.0082
- Rowley, J., & Slack, F. (2012). *Conducting a literature review*.
- Santos, S., Monteiro, J., do Espírito Santo, P. M., Augusto, L., & Oliveira, A. (2022). *The future of brand awareness and brand loyalty on travel agencies*. Hosted By The School of Hospitality and Tourism. doi:10.34190/ictr.15.1.107
- Seyfi, S., Hall, C. M., Vo-Thanh, T., & Zaman, M. (2022). How does digital media engagement influence sustainability-driven political consumerism among Gen Z tourists? *Journal of Sustainable Tourism*, 1–19.
- Sharma, A., Pandher, J. S., & Prakash, G. (2023). Consumer confusion and decision postponement in the online tourism domain: The moderating role of self-efficacy. *Journal of Hospitality and Tourism Insights*, 6(2), 1092–1117. doi:10.1108/JHTI-03-2022-0096
- Sharma, M., Antony, R., Sehrawat, R., Cruz, A. C., & Daim, T. U. (2022). Exploring post-adoption behaviors of e-service users: Evidence from the hospitality sector/online travel services. *Technology in Society*, 68, 101781. doi:10.1016/j.techsoc.2021.101781
- Sharma, S., Islam, N., Singh, G., & Dhir, A. (2022). Why do retail customers adopt artificial intelligence (Ai) based autonomous decision-making systems? *IEEE Transactions on Engineering Management*.
- Shin, J., Sudhir, K., Yoon, D., Shin, J., & Sudhir, K. (2012). *When to “fire” customers: Customer cost-based pricing*. Research Gate.
- Singh, S., Singh, G., & Dhir, S. (2022). Impact of digital marketing on the competitiveness of the restaurant industry. *Journal of Foodservice Business Research*, 1–29.
- Sreen, N., Tandon, A., Jabeen, F., Srivastava, S., & Dhir, A. (2023). The interplay of personality traits and motivation in leisure travel decision-making during the pandemic. *Tourism Management Perspectives*, 46, 101095. doi:10.1016/j.tmp.2023.101095 PMID:36937090
- Stangl, B., Inversini, A., & Schegg, R. (2016). Hotels’ dependency on online intermediaries and their chosen distribution channel portfolios: Three country insights. *International Journal of Hospitality Management*, 52, 87–96. doi:10.1016/j.ijhm.2015.09.015
- Statista Research Department. (2024, January 10). *Online travel market: Statistics & facts*. Statista. <https://www.statista.com/topics/2704/online-travel-market/>

- Su, K. W., Chiu, P. C., & Lin, T. H. (2022). Establishing a blockchain online travel agency with a human-computer interaction perspective. *Journal of Hospitality and Tourism Technology*, 13(3), 559–572. doi:10.1108/JHTT-01-2021-0038
- Sun, S., Law, R., & Schuckert, M. (2020). Mediating effects of attitude, subjective norms and perceived behavioural control for mobile payment-based hotel reservations. *International Journal of Hospitality Management*, 84(July), 102331. doi:10.1016/j.ijhm.2019.102331
- Sun, S., Law, R., & Tse, T. (2015). Exploring price fluctuations across different online travel agencies: A case study of room reservations in an upscale hotel in Hong Kong. *Journal of Vacation Marketing*, 22(2), 167–178. doi:10.1177/1356766715592663
- Talwar, S., Dhir, A., Kaur, P., & Mäntymäki, M. (2020a). Barriers toward purchasing from online travel agencies. *International Journal of Hospitality Management*, 89, 102593. doi:10.1016/j.ijhm.2020.102593
- Talwar, S., Dhir, A., Kaur, P., & Mäntymäki, M. (2020b). Why do people purchase from online travel agencies (OTAs)? A consumption values perspective. *International Journal of Hospitality Management*, 88, 102534. doi:10.1016/j.ijhm.2020.102534
- Talwar, S., Srivastava, S., Sakashita, M., Islam, N., & Dhir, A. (2022). Personality and travel intentions during and after the COVID-19 pandemic: An artificial neural network (ANN) approach. *Journal of Business Research*, 142, 400–411. doi:10.1016/j.jbusres.2021.12.002 PMID:34924646
- Thorbjørnsen, H., Pedersen, P. E., & Nysveen, H. (2007). “This is who I am:” Identity expressiveness and. *Psychology and Marketing*, 24(9), 763–785. doi:10.1002/mar.20183
- Torres, E. N., Adler, H., Lehto, X., Behnke, C., & Miao, L. (2013). One experience and multiple reviews: The case of upscale U.S. hotels. *Tourism Review*, 68(3), 3–20. doi:10.1108/TR-03-2013-0012
- Tranfield, D., Denyer, D., Smart, P., Goodhue, D. L., & Thompson, R. L. (1995). Towards a methodology for developing evidence-informed management knowledge by means of systematic rev. *Management Information Systems Quarterly*, 14(2), 207–222. doi:10.2307/249689
- United Nations World Tourism Organization. (2016). *UNWTO tourism highlights, 2016 edition*. United Nations World Tourism Organization. <https://www.e-unwto.org/doi/pdf/10.18111/9789284418145>
- United Nations World Tourism Organization. (2019). *International tourism highlights 2019*. United Nations World Tourism Organization. <https://www.e-unwto.org/doi/pdf/10.18111/9789284421152>
- Van Der Rest, J. P. I., Cordella, P., Loosschilder, G., & Schwartz, Z. (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. doi:10.1287/serv.2016.0137
- Van Wee, B., & Banister, D. (2016). How to write a literature review paper? *Transport Reviews*, 36(2), 278–288. doi:10.1080/01441647.2015.1065456
- Varella, R. R., Frazão, J., & Oliveira, A. V. M. (2017). Dynamic pricing and market segmentation responses to low-cost carrier entry. *Transportation Research Part E, Logistics and Transportation Review*, 98, 151–170. doi:10.1016/j.tre.2016.12.010
- Vinoi, N., Shankar, A., Khalil, A., Mehrotra, A., & Kumar, J. (2024). Holding on to your memories: Factors influencing social media hoarding behaviour. *Journal of Retailing and Consumer Services*, 76, 103617. doi:10.1016/j.jretconser.2023.103617
- Vrontis, D., & Weber, Y. (n.d.). *4th Annual EuroMed Conference of the EuroMed Academy of Business Business Research Challenges in a Turbulent Era*. Evangelos Tsoukatos EuroMed Press.
- Wahyuni, N., Wiweka, K., & Wachyuni, S. S. (2022). Online travel agencies or official website? Airline pricing behaviour comparison. In *Proceedings of the International Academic Conference on Tourism “Post Pandemic Tourism: Trends and Future Directions” (INTACT 2022)* (pp. 375–387). Atlantis Press. doi:10.2991/978-2-494069-73-2\_27
- Wan, Y. K. P., Li, X., Lau, V. M. C., & Dioko, L. D. (2022). Destination governance in times of crisis and the role of public-private partnerships in tourism recovery from COVID-19: The case of Macao. *Journal of Hospitality and Tourism Management*, 51, 218–228. doi:10.1016/j.jht.2022.03.012

- Wang, D., Xiang, Z., Law, R., & Ki, T. P. (2016). Assessing hotel-related smartphone apps using online reviews. *Journal of Hospitality Marketing & Management*, 25(3), 291–313. doi:10.1080/19368623.2015.1012282
- Wang, J., Zhang, Q., & Huang, W. (2023). A study of dynamic pricing strategies for cooperation between cruise lines and travel agencies. In *Proceedings of the 2nd International Conference on Bigdata Blockchain and Economy Management, ICBEM 2023*. IEEE. doi:10.4108/eai.19-5-2023.2334282
- Wang, W., Ying, S., Lyu, J., & Qi, X. (2019). Perceived Image Study with Online Data from Social Media: The Case of Boutique Hotels in China. *Industrial Management & Data Systems*, 119(5), 950–967. doi:10.1108/IMDS-11-2018-0483
- 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(3–4), 276–282. doi:10.1057/rpm.2016.16
- Xia, B., Dong, S., Li, Z., Zhao, M., Sun, D., Zhang, W., & Li, Y. (2022). Eco-efficiency and its drivers in tourism sectors with respect to carbon emissions from the supply chain: An integrated EEIO and DEA approach. *International Journal of Environmental Research and Public Health*, 19(11), 6951. doi:10.3390/ijerph19116951 PMID:35682534
- Xiang, Z. (2018). From digitization to the age of acceleration: On information technology and tourism. *Tourism Management Perspectives*, 25(September), 147–150. doi:10.1016/j.tmp.2017.11.023
- Yallop, A. C., Gică, O. A., Moisescu, O. I., Coro, M. M., & Séraphin, H. (2023). The digital traveller: Implications for data ethics and data governance in tourism and hospitality. *Journal of Consumer Marketing*, 40(2), 155–170. doi:10.1108/JCM-12-2020-4278
- Yang, Y., & Leung, X. Y. (2018). A better last-minute hotel deal via app? Cross-channel price disparities between HotelTonight and OTAs. *Tourism Management*, 68(February), 198–209. doi:10.1016/j.tourman.2018.03.016
- Ye, B. H., Barreda, A. A., Okumus, F., & Nusair, K. (2019). Website interactivity and brand development of online travel agencies in China: The moderating role of age. *Journal of Business Research*, 99, 382–389. doi:10.1016/j.jbusres.2017.09.046
- Ye, B. H., Fu, H., & Law, R. (2016). Use of impact-range performance and asymmetry analyses to improve OTA website quality. *Journal of Hospitality and Tourism Management*, 26, 9–17. doi:10.1016/j.jht.2015.09.001
- Ye, F., Yan, H., & Xie, W. (2022). Optimal contract selection for an online travel agent and two hotels under price competition. *International Transactions in Operational Research*, 29(2), 1274–1307. doi:10.1111/itor.12804
- Ye, Q., Law, R., Gu, B., & Chen, W. (2011). The influence of user-generated content on traveler behavior: An empirical investigation on the effects of e-word-of-mouth to hotel online bookings. *Computers in Human Behavior*, 27(2), 634–639. doi:10.1016/j.chb.2010.04.014
- Yeung, A. W. K. (2019). Comparison between Scopus, Web of Science, Pubmed, and Publishers for Mislabelled review papers. *Current Science*, 116(11), 1909. doi:10.18520/cs/v116/i11/1909-1914
- Yuan, Y., Chan, C. S., Eichelberger, S., Ma, H., & Pikkemaat, B. (2022). The effect of social media on travel planning process by Chinese tourists: The way forward to tourism futures. *Journal of Tourism Futures*.
- Zeng, B., & Gerritsen, R. (2014). What do we know about social media in tourism? A review. *Tourism Management Perspectives*, 10, 27–36. doi:10.1016/j.tmp.2014.01.001
- Zhang, H., Ali, M., & Tell, P. (2011). Identifying relevant studies in software engineering. *Information and Software Technology*, 53(6), 625–637. doi:10.1016/j.infsof.2010.12.010
- Zhao, Y., Song, P., & Feng, F. (2019). What are the revenue implications of mobile channel visits? Evidence from the online travel agency industry. *Electronic Commerce Research and Applications*, 36(August), 100865. doi:10.1016/j.elerap.2019.100865
- Zhu, Y., Zhang, R., Zou, Y., & Jin, D. (2023). Investigating customers' responses to artificial intelligence chatbots in online travel agencies: The moderating role of product familiarity. *Journal of Hospitality and Tourism Technology*, 14(2), 208–224. doi:10.1108/JHTT-02-2022-0041