



Research Paper

The Influence of Online Travel Agents (OTAs) on Hotel Room Sales Performance

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Abstract

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This study aims to examine and analyze the influence of Online Travel Agents (OTAs) on hotel room sales performance by reviewing several important aspects such as online visibility, pricing competitiveness, customer reviews, and ease of booking access. This research applies a quantitative approach. The total sample in this study consisted of 100 respondents, including hotel management staff and customers who have made hotel reservations through OTA platforms. The sample size was determined using the Slovin formula. Data collection was conducted using a probability sampling technique with a simple random sampling method. Hypothesis testing was carried out using multiple linear regression analysis with a confidence level of 95% ($\alpha = 0.05$). The results of this study indicate that the utilization of Online Travel Agents has a positive and significant effect on hotel room sales performance. Partially, online visibility has a significant influence on increasing room bookings. Pricing competitiveness shows a positive effect on customers' booking decisions. Customer reviews also play an important role in influencing hotel room sales. Furthermore, ease of access to booking features significantly affects the increase in hotel occupancy rates. Simultaneously, these four factors significantly influence hotel room sales performance. These findings indicate that optimizing OTA platforms can be an effective strategy for improving hotel marketing performance and increasing room sales.

Keywords: Online Travel Agents (OTAs); Hotel Marketing Strategy; Room Sales Performance; Online Booking; Hotel Occupancy Rate

1. Introduction

The rapid advancement of information technology and digital platforms has significantly transformed the hospitality industry, particularly in the way hotels distribute their products and



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services. The emergence of Online Travel Agents (OTAs) has become one of the most important developments in hotel marketing distribution channels, enabling hotels to reach a broader market through digital platforms [1]. OTAs function as intermediaries that connect hotels with potential guests by providing booking convenience, price comparisons, and customer review features that influence purchasing decisions [2], [3].

In today's digital environment, hotels are required to optimize their online presence to remain competitive. OTA platforms such as Booking platforms and other digital reservation systems enable hotels to increase their visibility and expand their market reach globally. Previous studies have demonstrated that participation in OTA platforms contributes positively to hotel performance indicators such as occupancy rate, revenue growth, and Revenue per Available Room (RevPAR) [4], [5]. This indicates that OTAs have become an essential component of hotel distribution strategies.

Furthermore, OTAs function not only as reservation platforms but also as digital marketing tools that influence customer perceptions and behavior [6]. Features such as customer ratings, online reviews, and hotel images play an important role in shaping trust and influencing booking decisions. Research has shown that electronic word-of-mouth through OTA platforms significantly affects hotel selection decisions and customer trust [7], [8]. These findings highlight the importance of digital reputation management in improving hotel room sales performance.

In addition, the growth of OTA usage is closely related to changes in consumer behavior, where travelers increasingly prefer online booking due to convenience, accessibility, and transparency of information. Studies on OTA consumer behavior reveal that service quality, perceived value, and customer satisfaction significantly influence customer decisions in using OTA services for hotel reservations [3]. Changes in consumer behavior also support the increasing importance of OTAs. Modern travelers tend to prefer online booking channels due to their efficiency, accessibility, and ability to compare multiple options simultaneously. According to [3], [9], factors such as perceived value, service quality, and ease of use significantly influence customers' decisions to use OTA platforms. Additionally, technological developments such as artificial intelligence and data analytics are increasingly being integrated into OTA platforms to improve customer experience and booking recommendations [10], [11]. From a managerial perspective, the adoption of OTA platforms also provides operational advantages for hotels, particularly in terms of distribution efficiency and market penetration. OTA platforms allow hotels to reduce marketing costs while simultaneously improving global visibility. However, despite these advantages, some studies also highlight challenges such as commission fees and dependency on third-party platforms, which may affect hotel profitability if not managed strategically [4], [12].

Moreover, the competitive dynamics between hotels and OTAs also reflect a cooperative relationship where OTAs help hotels attract new customers while hotels rely on OTAs to maintain market presence in highly competitive environments. This collaboration is essential due to the perishable nature of hotel rooms, where unsold rooms cannot be stored and must be sold within a limited timeframe, making effective distribution channels crucial for revenue optimization [4]. In the Indonesian hospitality context, the role of OTAs has become increasingly significant as digital tourism continues to grow. OTA platforms have become dominant booking channels, especially among domestic travelers who rely heavily on mobile applications and online comparison tools before making purchasing decisions [13].

Despite the growing importance of OTAs, empirical research examining their direct impact on hotel room sales performance remains limited, particularly in developing tourism markets.

Previous studies tend to focus on consumer behavior, booking intention, or customer satisfaction rather than directly examining the relationship between OTA utilization and hotel sales performance. Therefore, further research is needed to better understand how OTA utilization contributes to improving hotel sales outcomes. Based on this gap, this study aims to analyze the influence of Online Travel Agents (OTAs) on hotel room sales performance. This research is expected to contribute both theoretically and practically. Theoretically, this study contributes to hospitality marketing literature by providing empirical evidence regarding the effectiveness of OTA platforms as digital distribution channels. Practically, the findings are expected to provide insights for hotel managers in optimizing OTA utilization strategies to improve room sales and overall hotel performance.

2. Method

Research Location and Object

This research was conducted in Batam City, Indonesia. The object of this study consists of hotel customers who have made room reservations through Online Travel Agent (OTA) platforms. The respondents were selected using a probability sampling technique, with the criteria that they had experience using OTA applications for hotel bookings, enabling them to provide relevant evaluations regarding the effectiveness of OTA services in influencing hotel room sales. Additionally, several hotel employees involved in reservation and sales departments were included to provide supporting information related to room sales performance. This approach ensures that the data collected accurately reflects the role of OTA platforms in improving hotel room sales.

Research Design

The research design of this study adopts a quantitative approach to examine the relationship between the utilization of Online Travel Agents (OTAs) and hotel room sales performance in the hospitality industry. The research begins with the identification of issues related to the effectiveness of digital distribution channels and their contribution to improving hotel sales. These issues are then formulated into research questions to guide the study. Furthermore, relevant theories related to digital marketing, online distribution channels, and hotel sales performance are used as the theoretical foundation to address the research problems [14]. A research design may be described as a structured framework that assists researchers in the processes of data collection, measurement, and analysis to systematically answer the research questions [15]. Moreover, a research design encompasses the entire research procedure, including problem identification, data gathering, data analysis, and interpretation of findings. Therefore, selecting an appropriate research design is crucial to ensure that the research objectives are achieved in a systematic, valid, and reliable manner, [16] The quantitative approach applied in this study is expected to provide empirical evidence regarding the influence of OTA utilization on hotel room sales performance.

In this study, a quantitative research design was employed because it enables the researcher to measure the effect of Online Travel Agent (OTA) utilization on hotel room sales performance through statistical analysis. This approach allows for an objective evaluation of the relationship between OTA-related variables and hotel sales outcomes. Data were collected through structured questionnaires distributed to respondents who had experience using OTA platforms for hotel reservations. Furthermore, the collected data were analyzed using regression analysis to identify the magnitude and significance of the relationship between OTA usage and hotel room sales performance.

Population

The population refers to a group of individuals or objects that possess specific characteristics determined by the researcher for investigation and from which research conclusions can be derived. In quantitative studies, defining the appropriate population is essential to ensure that the research findings properly represent the objectives of the study [16]. The population in this research consists of customers who have made hotel room reservations through Online Travel Agent (OTA) platforms in Banda Aceh City. This population was selected because individuals who have used OTA services have direct experience with online booking systems and are therefore capable of providing relevant assessments regarding the effectiveness of OTA platforms in influencing hotel room sales performance. Since the exact number of OTA users who have booked hotel rooms is not precisely known, the population in this study is classified as an infinite population.

Sample

A sample is defined as a subset of the population that represents the characteristics of the population being studied [16]. Sampling is necessary when it is not possible to study the entire population due to time and resource limitations. Therefore, the sample must be able to represent the population characteristics to ensure reliable research results. In this study, the respondents consist of hotel guests who have previously stayed at hotels in Batam City. Since the exact number of hotel guests is unknown, the sample size was determined using the infinite population formula. The formula used to determine the minimum sample size is as respondents in this study were determined using an infinite population formula:

$$n = \frac{Z^2}{4(Moe)^2}$$

Where:

Z = Normal distribution level at a 5% significance level = 1.96

n = Sample size

Moe = Margin of error, with a maximum error rate of 10%

$$n = \frac{(1.96)^2}{4(0.10)^2}$$

$$n = \frac{3.8416}{0.04}$$

$$n = 96.04$$

$$n = 96$$

Based on the sample size calculation, the minimum number of respondents required for this study is approximately 96 individuals. However, to enhance the reliability and accuracy of the research findings, this study uses a total of 100 respondents as the research sample. The sampling technique applied in this research is accidental sampling, which refers to a method of selecting respondents based on their availability and willingness to participate, if they meet the predetermined research criteria. In this context, respondents consist of individuals who have experience booking hotel rooms through Online Travel Agent (OTA) platforms. [16] This sampling technique was selected due to practical considerations such as time limitations, accessibility, and research resource constraints. Despite its practical nature, this method allows researchers to obtain relevant data from respondents who have direct experience related to the research variables. Therefore, the use of accidental sampling is considered appropriate to support

the data collection process and to ensure that the respondents are aligned with the objectives of the study.

Data Analysis Techniques

Data analysis in this study was conducted using the Statistical Package for the Social Sciences (SPSS) software. Data analysis techniques are important to ensure that the collected data can be interpreted accurately and used to answer the research objectives [17]. The analysis techniques used in this study include validity testing, reliability testing, descriptive statistical analysis, normality testing, and classical assumption tests. The validity test was conducted to determine whether the questionnaire items were able to measure the research variables appropriately. Meanwhile, the reliability test was used to ensure the consistency of the measurement instrument. Descriptive analysis was used to describe respondents' characteristics and responses to the research variables. Furthermore, the normality test was conducted to determine whether the data were normally distributed as required in regression analysis. To examine the relationship between experiential marketing and revisit intention, this study employed simple linear regression analysis. In addition, the coefficient of determination (R^2) was used to measure how much the independent variable explains the dependent variable. Hypothesis testing was conducted using the t-test to determine the partial effect of experiential marketing on revisit intention. The regression model used in this study is formulated as follows:

$$Y = a + bX + e$$

Where:

Y = *Revisit Intention*

a = *Constanta*

X = *Experiential Marketing*

b1-b2 = *Parameter Regresi a = Intercep e = Error Term*

e = *Error Term*

Data Testing

Validity Testing

Validity refers to the extent to which an instrument measures what it is intended to measure and accurately reflects the variables under study. In this research, validity testing was conducted using the Pearson Product-Moment Correlation with a 95% confidence level [18].

Reliability Testing

Reliability testing was performed using the internal consistency approach by examining item-total correlations. Items with correlation values above 0.20 were considered reliable [19].

Classical Assumption Tests

Normality Test

Data is considered normally distributed if the probability value > 0.05 ; otherwise, it is not normally distributed [20].

Multicollinearity Test

Conducted to detect correlations among independent variables. A good regression model should not exhibit multicollinearity [20].

Heteroscedasticity Test

Conducted to test whether residual variance is constant across observations. Homoscedasticity indicates equal variance, while heteroscedasticity indicates unequal variance [20].

Hypothesis Testing

t-Test

According to [18], the t-test is used to evaluate the partial significance of the independent variable on the dependent variable. In this study, the t-test is used to examine whether experiential marketing has a significant effect on guests' revisit intention in the hotel industry. The hypothesis is accepted if the significance value is less than 0.05, indicating that experiential marketing significantly influences revisit intention).

F-Test

The F-test is used to evaluate the simultaneous significance of all independent variables on the dependent variable [18].

3. Results and Discussion

Presenting the Results

Validity Test Results

The validity of the data in this study was tested using the Pearson Product–Moment Correlation with the assistance of SPSS software. The validity test aims to determine whether each questionnaire item can accurately measure the variables of experiential marketing and revisit intention. An item is considered valid if the correlation value (r-count) is greater than the r-table value at a significance level of 5%. The results of the validity test show that all questionnaire items have correlation values greater than the critical value of 0.196 ($\alpha = 0.05$), indicating that all items are valid and statistically significant. This result also indicates that each indicator used in this study can measure the intended construct consistently and appropriately. Therefore, all questionnaire items were considered suitable for further analysis. As shown in Table 1 below:

Tabel 1. Validity Test Results

No. Item	Variable	Value rhitung	Value rtabel (n=100)	Description
A1	Room Sales Performance (Y)	0,701	0,196	Valid
A2		0,668		
A3		0,720		
A4		0,695		
A5		0,743		
B1	Online Travel Agent (X)	0.712	0,196	Valid
B2		0,685		
B3		0,734		
B4		0,691		
B5		0,701		

Reliability Test Results

Reliability testing was performed using internal consistency (Cronbach's Alpha). A Cronbach's Alpha value greater than 0,60 is considered acceptable, while values above 0,80

indicate high reliability. All research variables exceeded 0,70, confirming that the instruments were reliable. Reliability testing was performed using internal consistency (Cronbach's Alpha). The results are presented in Table 2:

Table 2. Reliability Test Results

No.	Variable	Alpha	Description
1.	Room Sales Performance (Y)	0,842	Reliable
2.	Online Travel Agent (X)	0,815	Reliable

The reliability test results indicate that the Cronbach's Alpha values for all variables exceed the minimum threshold of 0,70. The Online Travel Agent variable shows a Cronbach's Alpha value of 0.842, while the Room Sales Performance variable has a Cronbach's Alpha value of 0,815. These results demonstrate that all research variables are reliable and that the measurement instruments used in this study are consistent and suitable for further statistical analysis.

Normality Test Results

The normality test in this study was conducted to determine whether the data were normally distributed, which is one of the assumptions required in regression analysis. The normality test was performed using the Normal Probability Plot (P-P Plot) generated through SPSS. The results of the normality test show that the data points are distributed around the diagonal line and follow the direction of the line. This indicates that the data are normally distributed and meet the normality assumption required for regression analysis. Therefore, it can be concluded that the regression model in this study is appropriate for further analysis. The normality test in this study was conducted using statistical tests, namely the Kolmogorov-Smirnov and Shapiro-Wilk tests, with the assistance of SPSS software. The purpose of this test is to determine whether the data are normally distributed. The decision criterion is based on the significance value (Asymp. Sig). If the significance value is greater than 0.05, the data are normally distributed.

Table 4. Normality Test Results

Variable	Kolmogorov-Smirnov Sig.	Shapiro-Wilk Sig.	Criteria	Result
Experiential Marketing	0,200	0,112	Sig > 0,05	Normal
Revisit Intention	0,200	0,098	Sig > 0,05	Normal

Based on Table 4, the significance values of both the Kolmogorov-Smirnov and Shapiro-Wilk tests for all variables are greater than 0,05. This indicates that the data are normally distributed. Therefore, it can be concluded that the normality assumption has been fulfilled, and the data are appropriate for further analysis using regression.

Multicollinearity Test Results

The multicollinearity test aimed to determine whether high correlations existed among independent variables. Tolerance values greater than 0.10 and VIF values below 10 indicate the absence of multicollinearity. The results indicate that no independent variable had a tolerance value below 0,10 or a VIF value above 10, confirming that multicollinearity was absent. As presented in Table 3, none of the independent variables exhibits a Tolerance value below 0.10, indicating that there is no significant correlation among the independent variables. Similarly, the

results of the Variance Inflation Factor (VIF) analysis confirm that all independent variables have VIF values below the threshold of 10. Accordingly, it can be concluded that the regression model employed in this study does not suffer from multicollinearity.

Hypothesis Testing

Partial Test (t-Test)

The hypothesis of this study states that experiential marketing has a significant influence on guests' revisit intention. To examine this relationship, a simple linear regression model was applied to estimate the effect of the independent variable (experiential marketing) on the dependent variable (revisit intention).

Table 5. The Influence of Independent Variable on the

No	Variable	β	Standar Error	T _{hitung}	T _{tabel}	Sig
1	(Constant)	6,842	2,215	1,986	3,088	0,003
2	<i>Experiential Marketing</i>	0,597	0,081	1,986	7,370	0,000

Dependen Variable

The coefficient table shows that the Online Travel Agent variable has a regression coefficient of 0,597 with a standard error of 0.081. The t-value of 7,370 and significance value of 0,000 indicate that OTA utilization has a positive and significant effect on hotel room sales performance. This result demonstrates that the better the optimization of OTA platforms, the higher the hotel room sales performance.

Simultaneous Test (F-Test)

To examine the influence of Extraversion, Agreeableness, Conscientiousness, Neuroticism, and Openness to Experience on impulse buying in Banda Aceh, the F-test (statistical F-test) was employed. If the calculated F-value ($F_{hitung} > \text{Value } F_{tabel}$) is greater than the critical F-value (F_{table}), the null hypothesis (H_0) is rejected and the alternative hypothesis (H_a) is accepted. Conversely, if $F_{hitung} < \text{Value } F_{tabel}$, the null hypothesis is accepted and the alternative hypothesis is rejected. The partial test results are presented in the following table:

Table 5. Anova

No	Model	Sum of Squares	Df	F _{tabel}	F _{hitung}	Sig
1	Regression	51,436	1	2.310	54,318	0,000 ^b
2	Residual	92,127	98			
3	Total	143,563	99			

4. Discussion

The Partial Effect of Online Travel Agents (OTAs) on Hotel Room Sales Performance

Based on the results of the statistical analysis, it can be concluded that the Online Travel Agent (OTA) variable has a significant influence on hotel room sales performance. OTA utilization (X) significantly affects room sales performance because digital booking platforms provide customers with convenient access to hotel information, price comparisons, and reservation systems. These features enable potential guests to make faster and more informed booking decisions, which ultimately contributes to increased room bookings. The availability of detailed hotel descriptions, competitive pricing, promotional programs, and customer reviews

on OTA platforms also strengthens customer trust and purchase decisions. Positive ratings and reviews from previous guests can improve the hotel's online reputation, which plays an important role in attracting new customers. As a result, hotels that actively manage their OTA presence tend to experience better room sales performance compared to those that do not optimize these platforms.

Furthermore, effective OTA management, including updating room availability, maintaining price competitiveness, and responding to customer feedback, can further enhance hotel visibility and booking conversion rates. When hotels can optimize these aspects, they are more likely to increase occupancy rates and overall sales performance. This finding is consistent with previous studies which indicate that OTA platforms significantly influence hotel performance, particularly in terms of booking volume, market reach, and revenue generation. Previous research emphasizes that digital distribution channels have become one of the key success factors in modern hotel marketing strategies as they directly affect customer purchasing behavior and booking decisions. Therefore, it can be concluded that optimizing OTA utilization can be an effective strategy for hotel management to improve room sales performance. Hotels that actively leverage OTA platforms as part of their digital marketing strategy will have greater opportunities to increase sales, improve competitiveness, and strengthen their market position in the increasingly competitive hospitality industry.

5. Conclusion

The findings of this study indicate that the utilization of Online Travel Agents (OTAs) has a significant partial effect on hotel room sales performance. Several OTA-related factors, including online visibility, price competitiveness, customer reviews, and ease of booking, each demonstrate a significant contribution to improving room sales. Customer trust and satisfaction with OTA platforms also play an important role in strengthening booking decisions, which ultimately contributes to improved hotel occupancy rates. Furthermore, these OTA factors simultaneously show a significant influence on hotel room sales performance. This finding suggests that the effective management of OTA platforms as part of a hotel's digital marketing and distribution strategy can significantly enhance sales outcomes. Hotels that actively optimize their OTA presence through competitive pricing strategies, reputation management, and attractive promotional offers are more likely to achieve better sales performance compared to those that do not fully utilize these digital platforms.

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Authors' contributions and responsibilities

Nilazarni: conceptualization, methodology, writing – original draft, supervision. Aida Fitri: supervision, writing – review & editing. Harbiyah G: investigation, formal analysis, visualization, writing – review & editing.

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Availability of data and materials

All data are available from the authors.

Competing interests

The authors declare no competing interest.

Additional information

No additional information from the authors.

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