



Analysis of Online Travel Agent Reservation to Increase Room Occupancy at Nandini Jungle Resort & Spa

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Abstract

Purpose: The purpose of this study was to determine the application of promotions for online travel agents at Nandini Jungle Resort & Spa and to find out how much influence online travel agents have to increase room occupancy rates at Nandini Jungle Resort & Spa.

Research methods: The research data was obtained through the process of interview, observation, and documentation. Techniques Data analysis is done by using qualitative analysis and quantitative descriptive analysis.

Findings: Qualitative analysis was carried out on primary data through interviews and direct observation to find out the promotions carried out in hotels for online travel agents to increase room occupancy rates at Nandini Jungle Resort & Spa. Quantitative descriptive analysis was performed on secondary data, such as classical assumption test and simple linear regression analysis, with the help of the IBM SPSS version 26 program.

Implication: If the reservation variable through online travel agents increases by 1 unit, the resulting room occupancy rate will increase by 0.318 units. The regression coefficient $b = 0.318$ indicates the amount of additional room occupancy for each additional reservation through an online travel agent.

Keywords: Reservation, online travel agent, and room occupancy rate.

INTRODUCTION

Hotel is a type of accommodation that use part or all buildings, to provide lodging services, eating and drinking, as well as other services for the public which is managed commercially. The hotel has location, architecture, and superior facilities respectively, thus making potential guests or guests feel attracted to come and stay at the hotel (Maita, 2017). Located on the lush hillside of Bali's tropical rainforest, the traditional Balinese resort style allows it to exist and even continues to grow every year, even if there are many competitors from similar companies in the area. Every company must have a goal to achieve. In the hotel industry, increasing the occupancy rate will have an impact on sales.

When operating a hotel, it usually cooperates with the travel business to facilitate tourists to make reservations. The hotel management does cooperate with some travel agencies (Suwijati, 2019)

Room occupancy is a state of the extent to which the number of rooms sold when compared with the entire number of rooms that can be sold. The ratio of occupancy is a measure of the success of hotels in selling its main product, namely rooms (Hendriyati, 2019). Online Travel Agent is one type of travel agent that carries out its activities through online. This type of travel agent provides an online reservation service (online reservation) is a means required by someone to travel (Saragih L, 2019). Online travel agent website is a website managed by OTA that distributes and facilities booking with tourism business provider (Australian Tourism Data Warehouse, 2013). Table 1 is the room night data generated by offline and online travel agents in 2018-2020 which have an important role in efforts to increase the room occupancy rate at Nandini Jungle Resort & Spa.

Table 1. Room Night Generated by Online and Offline Travel Agents
[Source: Sales & Marketing Department, 2021]

Year	Online travel agent	Offline travel agent
2018	17,5%	9,5%
2019	23%	8%
2020	15,5%	5,5

Indicates room reservations through online travel agents at Nandini Jungle Resort & Spa is very dominant compared to offline travel agents, especially in the current situation of the Covid-19 pandemic, which greatly impacts the tourism industries and affects hotel room sales. The benefit thing about online travel agents compared to offline travel agents is: get special services from online travel agents, no need to bother making travel plans, can consult about the destination you want to visit, ease of ordering plane tickets, convenience if there is a schedule change, it's easier to take care of travel documents (visas), hotels fare are cheaper, convenient and economical transportation. Due to 2020 Covid-19 phenomenon the authors are interested in conducting research with the title "Analysis of Online Travel Agent Reservation to Increase Room Occupancy at Nandini Jungle Resort & Spa".

RESEARCH METHODS

This research was conducted at Nandini Jungle Resort & Spa located at Banjar Susut, Buahon Village, Payangan, Gianyar, Bali. The object of this research is online travel agent reservation at Nandini Jungle Resort & Spa. The types of data used in this study are divided into two types; qualitative data and quantitative data. The technique used in data collection is interview, observation, and documentation. The data analysis technique in this study uses quantitative descriptive analysis. Quantitative descriptive analysis is an analysis technique by providing a review of the data obtained so that it becomes clearer and more meaningful than just numbers (Sugiyono, 2016). Quantitative descriptive data analysis techniques specifically analyze data in the form of numbers with mathematical logic and through a statistical approach by using SPSS. The independent variable in this study is Online Travel Agent Reservation (X) and The Dependent variable is Room Occupancy Rate (Y).

FINDINGS

1. Analysis of Online Travel Agent Reservation to Increase Room Occupancy

Reservation is a sexy one on the front office department in charge of duties and responsibility to handle requests orders from potential guests. Reservation is a clerical or electronic process by which the product travel such as plane tickets, hotel rooms, the rooms on the yacht are available for use and ultimately purchased by a specific individual. The reservation section is one of the most important parts of the hotel front office because it is high low room bookings for rooms the hotel depends on this part. The act of accepting a reservation is named as the act of selling a room, where it was before guests come or arrive at the hotel then guests are first must first make a reservation in order get assurance that rooms are available. So in general, reservations are reservations facilities which include hotel, accommodation, meal, seats on the show, airplanes, trains, buses, entertainment, night clubs, discourage and so. The word reservation or reservation in the world of tourism it is also called booking, entertainment, night clubs, discourage, and so on. The word reservation or reservation in the world of tourism it is also called booking. (Maita, 2017)

Reservation sources for hotels are as follows.

a) Individual

Each person who making a booking is a source of reservation for the hotel, both booking for individual and groups.

Table 2: Room Occupancy by Direct Reservation
[Source: Nandini Jungle Resort & Spa, 2021]

Room occupancy by direct reservations				
No	Month	Year		
		2018	2019	2020
1	January	10,5%	9%	14%
2	February	17,2%	17,2%	12%
3	March	10,3%	18,1%	9%
4	April	17,2%	16,7%	0%
5	May	16,7%	15%	0%
6	June	8,4%	17%	0%
7	July	9,3%	19%	0%
8	August	18,7%	18,8%	0%
9	September	17,5%	18,2%	0%
10	October	18,9%	17,5%	9%
11	November	15,5%	18,8%	16%
12	December	10%	15,5%	13%
Average room occupancy		10%	15%	6%

Table 2 explained that guests staying at Nandini Jungle Resort & Spa and booking by direct reservations each year is increased except in 2020. In 2020 hotel occupancy has decreased slightly due to the Covid-19 pandemic. The room occupancy rate that can be achieved 5% by Nandini Jungle Resort & Spa is also contributed by the role of direct reservation which are potential sources of reservations for hotels.

b) Walk-in Guest

Walk-in guest is a term for guests who come to the hotel to stay without making a reservation in advance.

Table 3: Room occupancy by walk-in guest
[Source: Nandini Jungle Resort & Spa, 2021]

Room occupancy by walk in guest				
No	Month	Year		
		2018	2019	2020
1	January	5%	1%	6%
2	February	3%	3,2%	8%
3	March	1,7%	1,9%	1%
4	April	2,8%	3,3%	0%
5	May	3,3%	5%	0%
6	June	2%	3%	0%
7	July	0,9%	1%	0%
8	August	1%	1,2%	0%
9	September	2,5%	1,8%	0%
10	October	1,1%	2,5%	1%
11	November	4,5%	1,2%	4%
12	December	1%	4,5%	7%
Average room occupancy		2%	3%	2%

Table 3 explained that the room occupancy rate that can be achieved 1% by Nandini Jungle Resort & Spa is also contributed by the role of walk-in guest which are potential sources of reservations for hotels.

c) Travel Agent

Travel agencies are a potential source of room booking for hotels. In its activities, the travel agency sells tour packages which include accommodation. Hotel booking is done by a travel agency if: a. Guests buy a tour package that includes accommodation in it. In this case, the travel agency will get benefit from the special room rates. b. Guests ask the travel agency to book only rooms without buying a tour package.

In this case, the travel agency will also get a commission for its services or recommendations.

Tabel: 4 room occupancy by travel agent
[Source: Nandini Jungle Resort & Spa, 2021]

Room occupancy by travel agent				
No	Month	Year		
		2018	2019	2020
1	January	25,5%	24,3%	44%
2	February	27%	27,2%	42%
3	March	22,3%	28,1%	17%
4	April	27,2%	26,7%	5%
5	May	26,7%	30%	0%
6	June	16,4%	31%	0%
7	July	16,2%	29,8%	0%
8	August	28,7%	31,1%	0%
9	September	29,5%	31,6%	0%
10	October	28,9%	30,8%	35%
11	November	25,5%	30,8%	44%
12	December	22,4%	41,2%	70%
Average room occupancy		27%	31%	21%

Tabel: 5 room generated by travel agent
[Source: Nandini Jungle Resort & Spa, 2021]

Year	Online Travel agent	Offline travel agent
2018	17,5%	9,5%
2019	23%	8%
2020	15,5%	5,5%

Table 5 indicates room reservations through online travel agents at Nandini Jungle Resort & Spa is very dominant compared to offline travel agents, especially in the current situation of the Covid-19 pandemic, which greatly impacts the tourism industries and affects hotel room sales.

Table 6: List of online travel agent
[Source: Nandini Jungle Resort & Spa, 2021]

List name	Year		
	2018	2019	2020
Agoda	6,5%	8,2%	5,3%
Tiket.Com	3,5%	4,5%	3,3%
Traveloka	3,2%	4,2%	3%

Booking.Com	2,3%	3,6%	2,1%
Expedia	2%	2,5%	1,8%
Total	17,5%	23%	15,5%

Based on Table 6, Agoda is the highest contributor of room production to Nandini Jungle Resort & Spa from 2018 to 2019 increasing 1,7% room occupancy. Then the Tiket.com increasing 1,0%, the Traveloka increasing 1,0%, the Booking.com increasing 1,3% room occupancy, and the last but not least the Expedia increasing 0,5% room occupancy. But in 2020 hotel occupancy has decreased slightly due to the Covid-19 pandemic.

Table 7: Room occupancy data 2018-2020
[Source: Nandini Jungle Resort & Spa, 2021]

No	Month	Year		
		2018	2019	2020
1	January	26,4%	34,3%	64%
2	February	26,4%	47,2%	62%
3	March	33,4%	48,1%	27%
4	April	34,3%	46,7%	5%
5	May	45,5%	50%	1%
6	June	46,7%	51%	1%
7	July	47,2%	49,8%	1%
8	August	48,7%	51,1%	1%
9	September	49,5%	51,6%	1%
10	October	48,9%	50,8%	45%
11	November	45,5%	50,8%	64%
12	December	47,2%	61,2%	90%
Average Room Occupancy		41%	51%	30%

It can be seen in Table 7 and in the average room occupancy on Table 6 that room occupancy in 2018 from online travel agents was 17.5% of the 41% average number of room occupancy. Then in 2019, room occupancy increased by 10% from 41% to 51%. Room occupancy generated from online travel agent reservations is 23% of the 51% average number of room occupancy in 2019. This proves that reservations through online travel agents are more effective in increasing room occupancy at Nandini Jungle Resort & Spa despite a drastic decline in 2020 of as much as 21% due to the impact of the Covid-19 pandemic.

2. The Influence of Online Travel Agent Reservation to Increase Room Occupancy

The calculation to find out the effect of online travel agent to increase room occupancy is using simple linear regression analysis processed by SPSS version 26 application. This normality test is intended to find out whether the standardized residual values in the regression model are normally distributed or not. A good regression model is one that has a normally distributed residual value.

Table 8: Normality test
 [Source: Data Processing Result IBM SPSS 26, 2021]

		Unstandardized residual
N		36
Normal Parameters^{a,b}	Mean	.0000000
	Std. Deviation	36.079534
		98
Most Extreme Differences	Absolute	.120
	Positive	.120
	Negative	-.085
Test Statistic		.120
Asymp. Sig. (2-tailed)		.200 ^{c,d}
a. Test distribution is Normal.		
b. Calculated from data.		
c. Lilliefors Significance Correction.		

It appears that the data obtained has a significance value of 0.200 which is greater than 0.05 therefore it can be stated that the data have normal distribution.

Heteroscedasticity test is part of the classic assumption test in the regression model. The basis for decision making in the heteroscedasticity test with scatterplot charts as follows: If there are certain patterns on scatterplot charts, such as points forming regular patterns (wavy, spreading then narrowing), it can be concluded that heteroscedasticity has occurred. otherwise, if there are no

patterns forming on scatterplot charts and the points are spread out, then the indication is stated that heteroscedasticity do not occur.

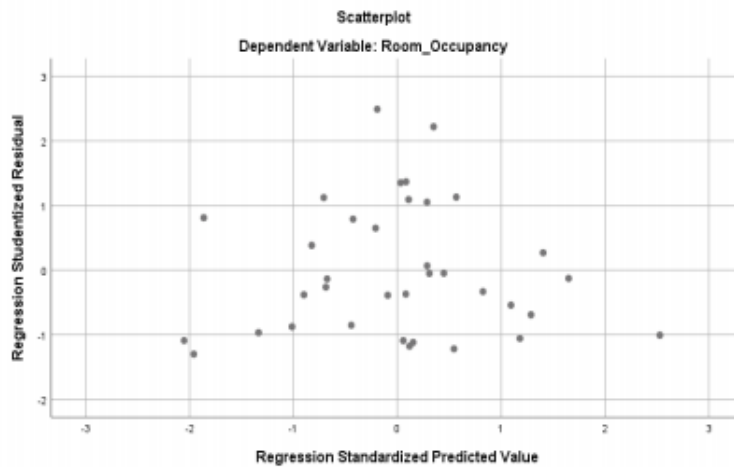


Figure 1. Graphic Scatterplot Result
[Source: Data Processing Result SPSS 26, 2021]

The scatterplot graph output on Figure 1 it can be seen that there are no clear patterns and the points are spread out. Then it can be concluded that heteroscedasticity does not occur. Heteroscedasticity test can also be tested using glacier. If the level of significance > 0.05 , heteroscedasticity does not occur and if the level of significance > 0.05 , heteroscedasticity is occurred (Sugiyono, 2012).

Table 9: Heteroscedasticity test
[Data Processing Result SPSS 26, 2021]

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error			
1	(Constant)	47.405	13.323		3.558	.012
	OTA Reservations	.318	.294	.183	4.085	.509

a. Dependent Variable: Room Occupancy

The significance level of the reservation through offline travel agent variable is 0.509 bigger than 0.05 ($0.509 > 0.005$), so it can be concluded that the data used in this study is free from heteroscedasticity.

This autocorrelation test aims to find out whether a linear regression model has a correlation between the interruption error in a certain period (e_t) and the interruption error of the previous period (e_{t-1}). This means that autocorrelation occurs in a series of observations that are time series, if there is a correlation, it said there is an autocorrelation problem (Rimbawan, 2013).

Durbin Watson (D-W) is used to check whether there are autocorrelation data or not. In general according to Sujarweni (2015) make the following guidelines are below detail:

- a. $D-W < -2$ means there is a positive autocorrelation
- b. $D-W$ between -2 to 2 means there is no autocorrelation
- c. $D-W > 2$ means there is a negative autocorrelation

Table 10: Autocorrelation test
 [Source: Data Processing Result SPSS 26, 2021]

Model summary ^b					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin Watson
1	.747 ^a	.560	.547	8.21495	1.352
a. Predictors: (Constant), OTA Reservations					
b. Dependent Variable: Room Occupancy					

The Durbin-Watson value is 1.352 which means the value can be between -2 and 2 , so that the data meets the autocorrelation test requirements and can be used for simple regression analysis. Simple linear regression analysis is used to make predictions, how the influence of reservations through an offline travel agent to room occupancy at Nandini Jungle Resort & Spa as follows:

Table 11: Simple linear regression test
 [Source: Data Processing Result IBM SPSS 26, 2021]

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error			
1	(Constant)	47.405	13.323		3.558	.012
	OTA Reservations	.318	.294	.183	4.085	.509

a. Dependent Variable: Room Occupancy

The results of a simple linear regression analysis using the SPSS application, the equation of occupancy rate affected by the promotional costs is: $Y = 47.405 + 0.318X$. The interpretations of the above equation values are: The constant value is $47.405 = 47.40\%$, then the online travel agent promotional costs (X) is 0. This means that if there is no room occupancy from online travel agent promotional costs or $x = 0$, the room occupancy rate is only 47.40%. Whereas if in the following month the room occupancy rate through online travel agent reservation is 1%, then the estimated number of room occupancy rates in the following month is $47.40 + 0.31 = 47.71\%$.

The regression coefficient value of the reservation variable through online travel agent (X) is 0.318. If coefficient 0.318 indicates that the occupancy rate of rooms (Y) will increase by 0.318 unit or 0.31%. A positive sign (+) indicates that the reservation variable via online travel agent (X) has a direct positive effect on the room occupancy rate (Y). If the reservation variable through online travel agent increases by 1 unit, the resulting occupancy rate of the room will rise by 0.318 unit or 0.31%. When the value of a reservation through an online travel agent is reduced by 1 unit then the value of the room occupancy rate will also decrease by 0.318 (0.31%). Regression coefficient $b = 0.318$ indicates the amount of additional room occupancy for each additional reservation through an online travel agent.

Table 12: Correlation analysis
 [Source: Data Processing Result IBM SPSS 26, 2021]

		Online Travel Agent	Room Occupancy
Online Travel Agent	Person Correlation	1	.740**
	Sig. (2-tailed)		.000
	N	36	36
Room Occupancy	Person Correlation	.740**	1
	Sig. (2-tailed)	.000	
	N	36	36

**Correlation is significant at the 0.01 level (2-tailed)

The value of r is 0.740, it can be concluded that between the reservation variables through the online travel agent to the room occupancy has a strong correlation due to the coefficient interval value is 0.60 -0.740.

Table 13: t-test
 [Source: Data Processing Result IBM SPSS 26, 2021]

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error			
1	(Constant)	47.405	13.323		3.558	.012
	OTA Reservations	.318	.294	.740	4.085	.509

a. Dependent Variable: Room Occupancy

The steps taken for the partial test (t-test) are follows:

1. Hypothesis Formulation

Hypothesis in the description of the sentence

H₀ : There is an influence between online travel agent reservations with room occupancy rate.

2. Determine DF (Degree of Freedom)

A significant level of 5% (α) = 0.05, with a confidence level of 95%, the amount of data (n) = 36, the number of variables (k) = 2, then carried out using the formula DF (Degree of Freedom), as follow:

$$DF = n - k$$

$$DF = 36 - 2 = 34$$

So that the t_{table} obtained is (0.05; 34) = 1.690.

Hypothesis testing criteria:
If $t_{count} \leq t_{table}$, then H_0 is accepted
If $t_{count} \geq t_{table}$, then H_0 is rejected

Table 8 obtained t_{count} of 4.085 with a significant level of 0.000 which shows t_{count} of 4.085 while t_{table} of 1.690. It can be concluded that $t_{count} > t_{table}$ that's means H_0 is accepted and which means that reservation from online travel agent significantly influences to the room occupancy.

Table 14: Coefficient of determination
 [Source: Data Processing Result IBM SPSS 26, 2021]

Model summary ^b				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.747 ^a	.560	.547	8.12495
a. Predictors: (Constant), OTA Reservations				
b. Dependent Variable: Room Occupancy				

To calculate the relationship between reservations through an online travel agent and room occupancy expressed as a percentage can be calculated using the following formula:

$$D = r^2 \times 100\%$$

$$D = 0.547 \times 100\%$$

$$D = 54.7\%$$

The calculation results obtained by the coefficient of determination is 54.7% which means that reservation through online travel agents contributes 54.7% to the hotel occupancy room while 45.8% is determined by other variables not discussed in this study.

The analysis of online travel agent reservation in Nandini Jungle Resort & Spa is that room occupancy in 2018 from online travel agents was 17.5% of the 41% average number of room occupancy. Then in 2019, room occupancy increased by 10% from 41% to 51%. Room occupancy generated from online travel agent reservations is 23% of the 51% average number of room occupancy in 2019. This proves that reservations through online travel agents are more effective in increasing room occupancy at Nandini Jungle Resort & Spa despite a drastic decline in 2020 of as much as 21% due to the impact of the Covid-19 pandemic.

The result of the hypothesis in this research that the reservation source through online travel agent has a positive and significant effect an influence to increasing room occupancy rate in 2018 – 2020 with the result t_{count} of 4.085 with a significant level of 0.000 which shows t_{count} of 4.085 while t_{table} of 1.690. It can be concluded that $t_{count} > t_{table}$ that's means h_0 is accepted and which means that reservation from online travel agent significantly influences to the room occupancy.

CONCLUSION

Online travel agent reservation has a positive and significant effect on increasing room occupancy. The results of this study is opposite with some previous studies which stated that at present online travel agents appear not only as intermediaries but also more as business partners or vendors to increase room occupancy and also there is studies suggesting hotels with low occupancy rates and low average sales prices to collaborate with online travel agents. This means that the analysis of online travel agent reservation adopted is success in helping hotel to increase room occupancy at Nandini Jungle Resort & Spa.

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