The Effectivity of E-Commerce in Increasing The Room Occupancy at Intercontinental Bali Resort, Jimbaran

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Abstract
This study is based on the effectiveness of e-commerce implementation increasing room occupancy. It aims to find out how effective the implementation of e-commerce is and to find out the most effective variables in increasing the room occupancy at InterContinental Bali Resort. This research theoretically is expected to support other research by providing additional information regarding the development of e-commerce activities and practically is expected to be useful for hotel management to evaluate the effectiveness of e-commerce implementation. The data collection methods used in this research are documentation, interviews, and observations. The data analysis technique used is a quantitative analysis which is done through the calculation of the percentage of effectiveness using the effectiveness formula, and descriptive qualitative that is done to explain the information and data in the form of numbers collected during conducting research. Data processing is done using Microsoft Excel and the results of data analysis in the form of numbers, percentages, and graphs will be qualitative in the form of information to answer the problem formulation, make conclusions and suggestions for this research. The implementation of e-commerce which is examined in this research is through B2B and B2C strategies. Based on the analysis that has been done, the results show that the average effectiveness of e-commerce is reaching 100% or it is categorized as “Very Effective” and B2B strategy is more effective in contributing room occupancy because it can exceed the target to be achieved.

Keywords: marketing, e-commerce, room occupancy

INTRODUCTION
Tourism is one of the major players in international commerce and the fastest growing economic sectors which represents one of the main income sources for many developing countries. As one of Indonesia’s favourite tourism destinations, Bali was chosen as the travelers’ choice top destination in 2017 by Trip Advisor Travellers Choice ratings. The high popularity of Bali as a tourist destination causes very tight competition among the hospitality business and its tourism industry especially hotels as they built to cater to the tourist needs. Hotel is one kind of accommodations that uses partly or fully the building to provide service for the public that is managed commercially (Ekaningrum, 2016: 41). Recognizing that 25.80%
of total hotels in Bali are built in Badung Regency makes a very competitive business cannot be avoided and create a fierce battlefield as companies fight to capture a similar type of guest (Statistic of Bali Province, 2019). With that competition, hotels in Bali compiled various marketing strategies in increasing room occupancy to be able to compete competitively. The success of a hotel in increasing room occupancy is inseparable from the efforts made by the Sales & Marketing Department in the form of e-commerce activities. The presence of e-commerce helps a Sales & Marketing Department to promote the products to the consumers through online portal and it can be accessed by all people in the world.

E-commerce is defined as a way to sell and buy goods (and services) through the internet network, but this of course, covers various aspects, included purchase transactions and fund transfers via computer networks (Nugroho, 2006: 5). There are four types of e-commerce based on their characteristics, such as Business to Business (B2B), Business to Customer (B2C), Customer to Customer (C2C), and Customer to Business (C2B) (Pratama, 2015: 10). However, this research is focusing to discuss the Business to Business (B2B) and Business to Customer (B2C). B2B is an online business communication system between business people, while the sellers in selling their products, do not interact and communicate directly with consumers. Whereas B2C can be interpreted as a type of electronic commerce where a company (Business) sells its products directly to buyers (Customers) or without using an intermediary (distributor).

### Table 1. Room Night’s Contribution by 2017-2019

| Year | E-commerce Target | E-Commerce | Offline Travel Agent | Group |
|------|------------------|------------|----------------------|-------|
| 2017 | 70,812           | 71,437     | 30,590               | 19,220|
| 2018 | 71,295           | 68,555     | 29,326               | 19,239|
| 2019 | 77,437           | 80,182     | 30,678               | 20,466|

(Source: Sales and Marketing Department, 2019)

InterContinental Bali Resort is one of the five stars hotel that implemented e-commerce to win this tough competition. As can be seen on the above room nights contribution table, it is dominated by e-commerce. Meanwhile, according to these problems, the researcher has questions, is it all of the e-commerce activity contribute effectively to the hotel and how it effects? Therefore, the researcher raises the title "The Effectivity of E-Commerce in Increasing the Room Occupancy at InterContinental Bali Resort, Jimbaran". Effectivity means that the information must be in accordance with user needs in supporting a business process, including
information that must be presented in the right time, the right format so that it can be understood, consistent with the previous format, the contents are in accordance with current needs and complete or by following the needs and conditions (Mc Leod, 2007: 41). The purposes of this study are to find out how effective the implementation of e-commerce is and to find out the most effective variables in increasing the room occupancy at InterContinental Bali Resort.

**RESEARCH METHOD**

The location of the study is at InterContinental Bali Resort, located at Uluwatu Street, No. 45, Jimbaran, South of Kuta, Bali. There is a total of 3 variables that have been used in this research, such as Business to Business (B2B), Business to Customer (B2C), and Room Occupancy. Variables are anything in the form of whatever is determined by researchers to be studied so that information is obtained about it, then conclusions are drawn (Sugiyono, 2014). The population used in this research is all the Online Travel Agencies (OTA) liaised with InterContinental Bali Resort and the sample only 10 OTA selected to be studied in this research. The data used in this study is quantitative data in form of target of the room nights to be achieved, the total of room night contribution (room sold), and room occupancy. In this study, the study documentation, interview, and observation are used to collect the data needed. Researches concerning effectivity of e-commerce to hotel’s room occupancy had been done by some researches such as Caliskan (2013), Agag (2017), Elhaj (2016), Julyanti (2099), and Dewi (2018). However, they did not cover all aspects of e-commerce channel distributions as we do (Business to Business and Business to Customer). Besides that, the location they chose is different from the one that researcher do.

Data analysis technique used in this study are quantitative analysis and qualitative descriptive analysis. Quantitative analysis which is used to answer the problem identification through the effectiveness formula (Mahmudi, 2005), as below:

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\text{Effectiveness} = \frac{\text{Total of room sold}}{\text{Target of rooms to be sell}} \times 100\%
\]

The descriptive qualitative analysis technique used to describe the information obtained from the effectiveness calculation through the effectiveness formula, then the results of calculations and tabulation of data in the form of percentages, tables and graphs are then analyzed, presented, interpreted and systematically described.
RESULTS AND DISCUSSION

1. The Effectivity of E-Commerce through B2B Implementation

| Monthly | 2017       | 2018       | 2019       |
|---------|------------|------------|------------|
|         | R/S        | Target     | Effectivity| Criteria | R/S        | Target     | Effectivity| Criteria |
| Jan     | 2.915      | 2.884      | 101.07     | VE       | 2.203      | 1.880      | 117.15     | QE       | 3.505      | 3.467      | 101.08     | VE       |
| Feb     | 2.978      | 2.947      | 101.07     | VE       | 2.584      | 2.112      | 122.34     | QE       | 4.689      | 4.652      | 100.80     | VE       |
| March   | 2.955      | 2.924      | 101.07     | VE       | 2.596      | 2.123      | 122.26     | QE       | 3.609      | 2.973      | 121.39     | VE       |
| April   | 4.159      | 4.129      | 100.74     | VE       | 2.753      | 2.268      | 121.37     | QE       | 4.198      | 3.561      | 117.89     | VE       |
| May     | 3.750      | 3.719      | 100.84     | VE       | 3.648      | 3.695      | 98.75      | QE       | 2.743      | 2.706      | 101.37     | VE       |
| June    | 5.121      | 5.090      | 100.61     | VE       | 3.119      | 3.206      | 97.28      | QE       | 2.723      | 2.686      | 101.37     | VE       |
| July    | 5.309      | 5.278      | 100.58     | VE       | 5.190      | 5.118      | 101.41     | QE       | 5.274      | 5.235      | 100.74     | VE       |
| August  | 5.227      | 5.195      | 100.62     | VE       | 5.829      | 5.707      | 102.13     | QE       | 5.396      | 5.359      | 100.70     | VE       |
| Sept    | 3.013      | 2.981      | 101.06     | VE       | 5.160      | 5.090      | 101.37     | QE       | 5.256      | 5.219      | 100.71     | VE       |
| Oct     | 3.575      | 3.544      | 100.87     | VE       | 5.179      | 5.108      | 101.40     | QE       | 5.351      | 5.314      | 100.69     | VE       |
| Nov     | 2.145      | 2.294      | 93.51      | E        | 3.158      | 3.242      | 97.41      | QE       | 2.446      | 2.408      | 101.56     | VE       |
| Dec     | 1.287      | 1.503      | 85.63      | QE       | 3.141      | 3.227      | 97.35      | QE       | 2.919      | 2.882      | 101.29     | VE       |
| Total   | 42,434     | 42,487     | 99         | E        | 44,561     | 42,777     | 104        | VE       | 48,109     | 46,462     | 104        | VE       |
| Average | 3.536      | 3.541      |            |           | 3.713      | 3.565      |            |           | 4.009      | 3.872      |            |           |

(Source: Revenue Department InterContinental Bali Resort (data processed))

The result conducted from above table shown that in 2017 the implementation of OTA it is targeted to 42,487 room nights but the results can be achieved in the amount of 42,434 room nights, it is shown did not achieved the desire target by 0.12% and categorized ineffective. However, in 2018 and 2019 is exceed the desired target of and it is categorized that the implementation of OTA strategy can be said effective. Furthermore, based on the effectiveness calculation resulted that in 2017 and 2018 effectivity criteria are lies in “Effective” criteria with the result is 99%. Meanwhile in 2019, the effectivity calculation in the year 2019 shown that the effectivity criteria are lies in “Very Effective”.

2. The Effectivity of E-Commerce through B2C Implementation

| Monthly | 2017       | 2018       | 2019       |
|---------|------------|------------|------------|
|         | R/S        | Target     | Effectivity| Criteria | R/S        | Target     | Effectivity| Criteria |
| Jan     | 1.944      | 1.923      | 101.10     | VE       | 1.186      | 1.254      | 94.62      | E        | 2.336      | 2.312      | 101.06     | VE       |
| Feb     | 1.985      | 1.964      | 101.05     | VE       | 1.391      | 1.408      | 98.81      | E        | 3.126      | 3.101      | 100.80     | VE       |
| March   | 1.970      | 1.949      | 101.07     | VE       | 1.398      | 1.416      | 98.75      | E        | 2.406      | 1.982      | 121.39     | VE       |
| April   | 2.774      | 2.752      | 100.78     | VE       | 1.482      | 1.512      | 98.03      | E        | 2.799      | 2.374      | 117.90     | VE       |
| May     | 2.500      | 2.479      | 100.84     | VE       | 1.965      | 2.463      | 79.76      | QE       | 1.820      | 1.804      | 101.39     | VE       |
| June    | 3.414      | 3.393      | 100.61     | VE       | 1.679      | 2.137      | 78.57      | QE       | 1.816      | 1.791      | 101.41     | VE       |
| July    | 3.540      | 3.519      | 100.60     | VE       | 2.795      | 3.412      | 81.91      | QE       | 3.516      | 3.490      | 100.74     | VE       |
| August  | 3.484      | 3.463      | 100.60     | VE       | 3.138      | 3.805      | 82.49      | QE       | 3.597      | 3.572      | 100.69     | VE       |
| Sept    | 2.008      | 1.988      | 101.03     | VE       | 2.779      | 3.394      | 81.88      | QE       | 3.504      | 3.479      | 100.71     | VE       |
| Oct     | 2.384      | 2.363      | 100.90     | VE       | 2.789      | 3.405      | 81.90      | QE       | 3.586      | 3.543      | 100.71     | VE       |
| Nov     | 1.730      | 1.529      | 113.13     | VE       | 1.701      | 2.162      | 78.68      | QE       | 1.630      | 1.606      | 101.52     | VE       |
| Dec     | 1.270      | 1.002      | 126.75     | VE       | 1.692      | 2.151      | 78.63      | QE       | 1.946      | 1.921      | 101.29     | VE       |
| Total   | 29,003     | 28,325     | 102        | VE       | 23,994     | 28,518     | 84         | QE       | 32,073     | 30,975     | 104        | VE       |
| Average | 2.417      | 2.360      |            |           | 2.000      | 2.377      |            |           | 2.673      | 2.581      |            |           |

(Source: Revenue Department InterContinental Bali Resort (data processed))
The result conducted from above table shown that in 2017 the implementation of B2C it is targeted to 28,325 room nights but the results can be achieved in the amount of 29,003 room nights, it is shown did not achieved the desire target by 2.34% and categorized effective. However, in 2018 the room night contribution did not achieve the desire target with the room night achieved is 23,994 from the target 28,518 and it is categorized ineffective. Meanwhile, in 2019 is exceed the desired target of and it is categorized that the implementation of B2C strategy can be said effective. Furthermore, based on the effectiveness calculation resulted that in 2017 effectivity criteria are lies in “Very Effective”, in the year 2018 shown that the effectivity criteria are lies in “Quite Effective”, in the year 2019 shown that the effectivity criteria are lies in “Very Effective”.

3. Effectivity of E-Commerce Implementation in Increasing the Room Occupancy at InterContinental Bali Resort.

The implementation of e-commerce in increasing the room occupancy at InterContinental Bali Resort can be seen from the results of data calculations conducted by the Revenue Department. The data calculation is done to know how much contribution is made by the implementation of ecommerce in increase room occupancy at InterContinental Bali Resort, as follow:

| Monthly | 2017 |  |  |  |  |  |  |
|---------|------|---|---|---|---|---|---|
|         | Room Occ (%) | E-commerce Occ (%) | Room Occ (%) | E-commerce Occ (%) | Room Occ (%) | E-commerce Occ (%) |
| Jan     | 69.10 | 37.59 | 38.25 | 26.22 | 81.40 | 45.18 |
| Feb     | 69.70 | 39.67 | 48.51 | 31.77 | 91.00 | 62.47 |
| March   | 69.70 | 38.10 | 50.10 | 30.90 | 70.80 | 46.53 |
| April   | 84.20 | 55.42 | 57.64 | 33.85 | 85.20 | 55.93 |
| May     | 83.30 | 48.35 | 59.66 | 43.42 | 78.20 | 35.37 |
| June    | 90.60 | 66.02 | 65.41 | 37.12 | 87.80 | 35.11 |
| July    | 92.90 | 68.45 | 86.20 | 61.77 | 95.40 | 68.00 |
| Aug     | 91.70 | 67.39 | 92.70 | 69.37 | 97.80 | 69.57 |
| Sep     | 77.40 | 38.84 | 89.60 | 61.41 | 97.00 | 67.77 |
| Oct     | 65.20 | 46.10 | 87.60 | 61.54 | 94.40 | 69.00 |
| Nov     | 50.00 | 29.98 | 56.81 | 37.59 | 71.40 | 31.53 |
| Dec     | 26.00 | 19.78 | 55.14 | 37.39 | 74.50 | 37.63 |
| Average | 72.48 | 46.31 | 65.64 | 44.37 | 85.41 | 52.01 |

(Source: Revenue Department InterContinental Bali Resort (data processed, 2020))

This contribution is used to provide an overview of the benefit of using the e-commerce, so it will assist in taking appropriate method in increasing room occupancy in the following year. In the year 2017 the contribution from ecommerce is 46.31% from the total room
occupancy is 72.48%. Furthermore, in 2018 the contribution of e-commerce decreased at 1.94% from the previous years, as shown that the contribution that achieved is 44.37% from the total room occupancy is 65.64%. This business declined because of the impact from the renovation program for several building at InterContinental Bali Resort, and the phenomena of Mount Agung eruption that happened on September 2017. Meanwhile, in 2019, some of the building have been renovated and the Sales and Marketing Department create special offers for the OTA, create several new room packages on the website to promote the new product, and the condition of Mount Agung is fully recovered. Therefore, it is increased the contribution by 7.64% from the previous year with the number of contributions is 52.01% from the total room occupancy achieved on this year is 85.41%. Referring to the previous research which develop the reservation of Online Travel Agent (OTA) to the Room Occupancy period 2015-2017, stated that the reservation in 2015 is 41% from the total room occupancy is 42%. In the year 2016, the total reservation of OTAs is 50% from the total room occupancy is 58% and on the year 2017 the total reservation from OTAs raised 51% from the total room occupancy is 59%. This percentages show that the contribution from OTAs distribution channel has great influence toward increased the room occupancy (Dewi, 2018).

4. The Most Effective Variable in Increasing Room Occupancy at InterContinental Bali Resort

| Years | E-Commerce | B2B | B2C |
|-------|------------|-----|-----|
|       | Room Night | Occ (%) | Room Night | Occ (%) | Room Night | Occ (%) |
| 2017  | 70,812      | 45.65 | 42,487    | 27.39 | 28,325 | 18.26 |
| 2018  | 71,295      | 45.96 | 42,777    | 27.58 | 28,518 | 18.38 |
| 2019  | 77,437      | 49.92 | 46,462    | 29.95 | 30,975 | 19.97 |
| Total | 219,544     | 47.18 | 131,726   | 28.31 | 87,818 | 18.87 |

(Source: Revenue Department (data processed, 2020))
By grouping the total target and total room night contribution achieved, the result shown that in 2017-2019 the implementation of e-commerce through the B2B strategy as overall is targeted at 131,726 room nights and the overall results at 135,104 rooms nights, which shown that it is exceed the target by 2.50%. While the implementation of e-commerce through the B2C strategy in the 2017-2019 period as overall is targeted at 87,818 room nights, but the overall results can be achieved at 85,070 room nights, which is shown that the implementation of B2C did not achieve the desired target of 3.13%. This result shown that B2B strategy is more effective when compared to the B2C strategy, since B2B could exceed the desire target.

CONCLUSIONS
Based on result of data analysis, can be concluded that B2B has increased every year from 2017-2019 and is able to produce room night contribution which is exceed the target and it is categorized to be effective. However, the implementation of B2C is categorized ineffective since the overall contribution still below the desire target. Furthermore, the variables that give the most effective contribution to the room occupancy is Business to Business (B2B), as it is able to exceed the desire target, if compared with Business to Customer (B2C) variable.

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