Implementation of Efficiency in the Hotel Tourism Sector to Increas the Regional Economy

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Abstract: *The tourism sector, especially the hospitality sector, has the potential to develop the economy in the city of Surabaya, because it has characteristics and contributes to the GDP of East Java Province. Hospitality tourism develops regional and national economies to prepare for international competitive hospitality tourism. The purpose of this research is to determine the level of technical efficiency of 10 5-star hotels in the city of Surabaya, see and find out which hotels in the city of Surabaya are the most efficient, and determine the factors that cause the efficiency of hotels in the city of Surabaya to provide solutions to achieve efficiency for the following year. The data used in this study are secondary data and primary data. The data search was carried out mainly on various sources or agencies and parties related to this research, namely BPS East Java, Surabaya City Tourism and Culture Office, related hotels. The analytical tool used in this research is Data Envelopment Analysis (DEA). From the results of the calculation analysis using Data Envelopment Analysis (DEA) shows that ten (10) 5-star hotels in the city of Surabaya have technically efficient performance.*

Keywords: *number of rooms, number of beds, average length of stay, hotel income, number of hotels, Data Envelopment Analysis (DEA).*

1. Introduction

Tourism is one of the mainstay economic sectors in Indonesia, there are many areas that have tourism potential (Lucky, 2020). The tourism sector is currently one of the leading sectors in Indonesia, where the role of tourism in development can be seen, among others, from an economic perspective, which is a source of state revenue in the form of taxes and levies, cultural and social culture, namely the creation of jobs (Luluk, 2019). The attention of the government regarding the tourism sector is to provide facilities and infrastructure improvements in tourist areas so that visitors are increasing and attracting visitors (Muktiyah, 2017).

Community empowerment is a benchmark for tourism success, so it is necessary to increase tourism by increasing community participation by increasing the progress of tourist areas (Aris, 2010). If tourism is a mainstay sector in the development of a region, then the region must have various unique characteristics for economic development, as well as being able to empower the wider community, both actors and connoisseurs of tourism development (Ida, 2017). Tourism activities within the scope of the economy in an area are one of the productive sectors and contribute income to the region both directly and indirectly (Riswandha, 2018).

Visitors to tourist attractions can come from domestic tourists, domestic tourists and foreign tourists. So that all tourists continue to visit tourist attractions in Indonesia, it is necessary to develop and develop sustainable potential and tourist attractions in the form of infrastructure and physical facilities as well as tourism services. One of the facilities needed in the tourism sector is accommodation and the provision of food and drink as well as hotels (Masruqy, 2020).

There are quite a number of hotels in the city of Surabaya and have various classes according to the standards of star hotels and non-star hotels. In the city of Surabaya in 2016 there were a total of 189 hotels including star hotels and non-star hotels, then in 2017 the total number of star hotels and

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non-star hotels rose to 239 hotels (BPS Jatim, 2021). Hotels in the city of Surabaya provide room and bed facilities as facilities for hotel guests and visitors to stay. Hotel bedrooms increased by 10,773 in 2016 increasing to 19,874 in 2017 (BPS Jatim, 2021). Hotel beds continued to increase, namely 14,835 in 2016 increasing to 27,740 in 2017 (BPS Jatim, 2021). The efficiency of a hotel in the form of setting room rates in accordance with the facilities offered. The more facilities offered but have a competitive room rate, will make the hotel a choice for customers.

Hospitality is currently growing rapidly and competition is getting tougher, so at this time many hotels have grown throughout the Surabaya area from various hotel classifications, both star hotels and non-star hotels. In the past, the function of the hotel was only as a place to stay for consumers who went on business or tourism trips and had no relationship at the destination. Over time, the function of the hotel has increased. Currently, hotels are often used for weddings, corporate meetings, launching of new products for a company and often hotels are used as a means for weekends for the upper middle class. In order to be one step ahead of its competitors, which in this case will be presented specifically how to see a hotel has been efficient and gives satisfaction to hotel guests (Danang, 2010).

Research objectives is (i). analyzing the level of efficiency in hotels in the city of Surabaya based on the results of the Data Envelopment Analysis (DEA) analysis, (ii). analyzing the most efficient hotel from the results of the Data Envelopment Analysis (DEA) analysis of the efficiency level of hotels in the city of Surabaya, (iii). analyze what factors cause hotels in the city of Surabaya to experience inefficiency, and how to find solutions to achieve efficiency.

2. Theoretical Framework and Hypothesis Development

A. Efficiency Theory

Efficiency is a measure that shows how well economic resources are in the production process to produce output. In managerial economics related to the concept of production efficiency, there are two kinds of efficiency, namely: technical efficiency and economic efficiency (Vincent, 1999:190). Technical efficiency refers to the maximum level of output that is technically achievable from the use of certain combinations of inputs in the production process.

Economic efficiency refers to the combination of the use of inputs that are economically capable of producing a certain output at the minimum possible cost at the current input price level. Efficiency is needed in the company for the survival of the company. Companies in the production process can use one variable input or with two or more variable inputs in creating efficiency (Danang, 2010).

B. Production Theory

Production is the activity of changing inputs into outputs (Sugiarto, 2002:202). Production activities are expressed in terms of the production function in the economy. The production function shows the maximum amount of output that can be produced from the use of a number of inputs using

a certain technology. The relationship between inputs and outputs is quite complex because several inputs or production factors simultaneously affect the output (Faried, 1991:211).

The provisional analysis assumes that the quantity of other production factors used except labor remains constant, so that it is clearer how the influence of the factors of production on the quantity of production is known. The quantity produced is influenced by the amount of labor used, if one of the production factors is a factor that can be changed (input variable) to produce a number of outputs, while other production factors are considered fixed (fixed input) then the company's production activities are in the short term. In the long run, all factors of production are variable factors that can be changed (input variables).

C. Hotel Theory

Literally, the word hotel used to come from the word HOSPITIUM (Latin), which means living room. In the long term the word hospitium underwent a process of changing meaning and to distinguish between Guest Houses and Mansion Houses (big houses) that were developing at that time, large houses were called HOSTEL (Nyoman S. Pendit: 1999).

These big houses or hostels are rented out to the general public to stay and rest for a while, which during their stay the stayers are coordinated by a host, and all guests who stay (during) must comply with the rules made or determined by the host (HOST HOTEL). In accordance with the development and demands of people who want to get satisfaction, do not like too many rules or regulations as in hostels, and the word hostel is slowly changing. The letter "s" in the word hostel disappeared or was omitted by people, so that the word hostel turned into a hotel as we know it today (Danang, 2010).

According to Webster, a hotel is a building or an institution that provides rooms to stay, eat and drink and other services to the public. According to the Hotel Proprietors Act, 1965, a hotel is a company managed by its owner by providing food and beverage services and room facilities for sleeping to people who are traveling and are able to pay a reasonable amount in accordance with the services received without any special agreement. According to Prof. K. Krapf, a hotel is a building to provide lodging, food and services related to staying and eating for those who travel.

D. Previous Research

1. Agustiana (2013), the sample method used is Quoted Accidental Sampling which is intended for any visitor who happens to be traveling and is added by the manager of a tourist attraction as a key person. The number of samples is 120 people. The results show that from the input-output calculation of the six tourism objects in Wonosobo Regency using the Data Envelopment Analysis (DEA) method, it is known that there are 5 tourism objects that have reached the efficiency level and 1 tourism object that has not been efficient, with an efficiency level of only 34. ,25%. The tourism objects that are not yet efficient can refer to other tourism objects that are already efficient in order to increase their efficiency score.

2. Asmarivah (2018), This study aims to see the effectiveness of the tourism destination development program in Rokan Hulu district. This finding is a problem with the implementation

of the program due to the ineffectiveness of the program. The data were obtained through library research and field studies in the form of non-participatory observations, in-depth interviews, and documentation. Testing the credibility of the data using source triangulation techniques and triangulation techniques, then the data is reduced, presented, and drawn conclusions. Based on the research results, in fact the implementation of the program has not been effective in achieving its objectives, namely the achievement of PAD according to the target.

3. Prasetyo (2010), The results of the analysis state that the cause of hotel inefficiency comes from inputs that are not in accordance with the needs/waste occurs. The results of the calculation analysis using Data Envelopment Analysis (DEA) show that not all hotels in the Tawangmangu tourist area have technically efficient performance. Of the thirty (30) hotels in the tourist area of Tawangmangu, only two hotels perform technically efficient work processes, namely Hotel Tejomoyo and Hotel Anugerah Indah plus one hotel that is allocatively efficient, namely Hotel Wahyu Sari.

4. Luluk Fidliyanti, Himawan Sutanto, Baiq Saripta Wijimulawiani (2019)

   The tourism sector (providing accommodation and food and drink) is the leading sector/base that has the highest potential compared to other leading sectors in West Lombok district. This can be seen from the 2015-2018 LQ value, which is the highest value compared to the LQ value of other leading/basic sectors. This means that the tourism sector is a relatively over-specialized sector and has high economic activity in that sector.

3. Research Method

The population and sample of the study include the total population is 68 star hotels in Surabaya, the sample is 10 5 star hotels in Surabaya. The location of the research was carried out in the city of Surabaya with the year of research being in 2021. This type of research is quantitative research, with the types of data being primary data and secondary data. Sources of data were taken from BPS East Java and the Surabaya City Cultural Tourism Office, star hotels used in the study. Input variables include number of rooms and number of beds with output variables including average length of stay and hotel income. The analysis tool uses Data Envelopment Analysis (DEA).

The Data Envelopment Analysis (DEA) method is a non-parametric method based on linear programming. DEA measures the relative efficiency ratio of Economic Activity Units (UKE) as the ratio of weighted outputs to weighted inputs. Conceptually, DEA describes measures designed to measure the relative efficiency of a particular economic unit with several other economic units in one observation, where they use the same types of inputs and outputs. DEA (Data Envelopment Analysis) is a calculation of efficiency, relative technique. The hypothesis for the results of the DEA (Data Envelopment Analysis) calculation is:

a. UKE is less efficient if the efficiency is < 100%

b. UKE is efficient if efficiency = 100%

4. Results and Discussion

The city of Surabaya has good hospitality potential, many hotels with various star classes in Surabaya include 1, 2, 3, 4 and 5 stars. Star hotels in Surabaya are used for various activities that can boost the regional economy. Some of the activities carried out at star hotels include seminars, meetings, business, vacations and temporary stays.

Hotels definitely improve the quality of services and services by always innovating and increasing efficiency. Measuring the hotel's performance in processing the available input stock to produce certain outputs according to the expected production scale. The purpose of using efficiency in hotels is to increase hotel revenues and move the regional economy. The hotels studied are 5-star hotels in the city of Surabaya, namely:

Table 1.

5 Star Hotel in Surabaya City

No	Hotel Name
1.	Mercure Grand Mirama Surabaya
2.	Shangri-la Hotel Surabaya
3.	Vasa Hotel Surabaya
4.	Hotel Ciputra World Surabaya
5.	Bumi Surabaya City Resort
6.	JW Marriott Hotel Surabaya
7.	Wyndham Surabaya Hotel
8.	Sheraton Surabaya Hotel & Towers
9.	Ascott Waterplace Surabaya
10	TS Suites Surabaya

Source: Data Processed 2021

The 5-star hotels in Table 1 are hotels with visitors for the purpose of staying or other activities such as business, seminars. Of course, the 5-star hotel provides facilities in the form of bedrooms and beds in accordance with 5-star hotel standards. The number of bedrooms and the number of beds will certainly affect the length of stay of guests and hotel visitors and affect the hotel's income.

In addition to bedrooms and beds, of course, the hotel uses skilled and professional employees. Other supporting facilities are still needed for operations at the hotel. Generally, the location of 5-star hotels is in the city center and the center of the trade business in the city of Surabaya. The strategic location of the hotel makes it easy to find accommodation and offers to stay and visit. 5-star hotels have a sizable net income each month due to high rates.

Table 2.

Efficiency Level of 5 Star Hotel in Surabaya City

No	Hotel Name	Technical Efficiency Hotel
1.	Mercure Grand Mirama Surabaya	**Technical Efficiency** = 100%

2.	Shangri-la Hotel Surabaya	**Technical Efficiency** = 100%
3.	Vasa Hotel Surabaya	**Technical Efficiency** = 100%
4.	Hotel Ciputra World Surabaya	**Technical Efficiency** = 100%
5.	Bumi Surabaya City Resort	**Technical Efficiency** = 100%
6.	JW Marriott Hotel Surabaya	**Technical Efficiency** = 100%
7.	Wyndham Surabaya Hotel	**Technical Efficiency** = 100%
8.	Sheraton Surabaya Hotel & Towers	**Technical Efficiency** = 100%
9.	Ascott Waterplace Surabaya	**Technical Efficiency** = 100%
10	TS Suites Surabaya	**Technical Efficiency** = 100%

Source: Data Processed 2021

In Table 2 it can be seen that all hotels have reached 100% technical efficiency. It can be concluded that the 10 5-star hotels that achieve efficiency have utilized their input optimally to produce optimal output. The input is the number of rooms and the number of beds and the output is the hotel's income and the length of stay of hotel guests.

5. Conclusion, Implication and Limitation

5.1. Conclusion

1. From the results of the calculation analysis using Data Envelopment Analysis (DEA) shows that 10 5-star hotels in the city of Surabaya have technically efficient performance.

2. Hotels that have been efficient should maintain their level of efficiency, but not only maintain the outputs and inputs that have been used. Because the measurement of technical efficiency is relative, it is not necessarily every year that it can maintain its level of efficiency. The reason is that the productivity of other units can increase or be better than the current inputs and outputs. So that quality resources, good and professional service, superior technology and innovation must be prioritized in order to achieve efficient conditions at all times.

5.2. Implication and Limitation

Implications:

1. An efficient hotel is able to process inputs with a maximum production scale.

2. Efficiency hotels provide better output in terms of quantity and quality.

3. An efficient hotel is able to develop branches and create new jobs.

4. Efficiency hotels increase hotel revenue.

5. Efficiency hotels increase revenue for the government through taxes and levies.

Limitation:

1. More samples are needed, for example adding hotel class to all star hotels, namely 1,2,3,4 and 5 star hotels.

2. Additional independent variables are needed to add research observations to make it wider.

3. Furthermore, it is better to compare the efficiency of star hotels with non-star class hotels.

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