Quantifying tourist contributions: Assessing the impact of domestic and foreign visitors on Bandung's hotel tax income growth

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Abstract. The city of Bandung, situated in West Java, Indonesia, is a prominent tourist destination. Its combination of physical and cultural attributes makes it an appealing choice for both local and international travelers. The influx of tourists, whether domestic or foreign, holds the potential to enhance the city's financial prospects, particularly through hotel taxes. This study delves into the correlation between domestic and foreign tourist visits and the escalation of hotel tax revenue in Bandung. The goal is to derive a formula that can effectively optimize hotel tax earnings in the city. Employing descriptive and causal methodologies alongside a quantitative approach, the research relies on secondary data spanning 2004 to 2021 and employs multiple linear regression for data analysis. The findings demonstrate a positive correlation between foreign tourist visits and the growth of hotel tax revenue, underscoring how an increase in foreign tourists corresponds to heightened tax earnings. Conversely, the research reveals a negative impact of domestic tourist visits on the expansion of hotel tax revenues.

1 Introduction

Bandung, often referred to as "Paris van Java," is one of the famous tourist destinations in Indonesia and abroad. As the capital of West Java province, which is also the most populous province in Indonesia, Bandung is located at an altitude of 768 meters above sea level. The city has attracted attention as a popular holiday destination for over a hundred years thanks to its mild climate. In addition, because Bandung is located on the main route built by the Dutch colonizers, the city is also an important stopover for travelers exploring other regions [1]. Bandung has many city parks and historical buildings that characterize its character. In addition to its physical attraction, Bandung also has a unique culture that includes regional languages, musical instruments, and dances. Furthermore, the city has been known as a shopping and culinary destination, as its residents are famous for their high creativity in arts, crafts, culinary, fashion, and various other fields along with the development of the city [2].

The tourism sector has become one of the mainstays for the city of Bandung, because every year it continues to experience positive developments and contributes greatly to the city's economic development [3]. This potential has become the main focus of the Bandung
city government, especially since the enactment of Law Number 32 of 2004 concerning Regional Autonomy, which requires local governments to manage their own government affairs in accordance with the principle of autonomy and community interests [4]. Therefore, the Bandung city government must continue to strive to develop its tourism potential to encourage economic growth and the welfare of its residents. The tourism sector has the potential to have a positive impact on other sectors [5], because it is able to attract tourists, both from within the country and abroad, who are willing to spend their money.

The tourism industry has a significant role in the growth and development of a country [6]. The tourism sector includes not only the arrival of foreign tourists, but also the visit of domestic tourists. Domestic tourist arrivals have great potential to increase revenue and tax contributions, especially through the hospitality sector. Revenues derived from tourism activities, such as taxes imposed on lodging, restaurants, and transportation, become a source of income for the government. The increased tax revenue can be used to support infrastructure projects, develop the tourism sector, and provide other public services [7]. The growth of tax revenues is not only beneficial for the welfare of residents, but also for the overall economic progress of the region.

For the Bandung city government itself, domestic and foreign tourist visits are a potential to increase regional revenue sources, especially from taxes. Regional taxes are one of the original sources of local revenue that is able to provide the largest contribution to the regional treasury compared to other revenues [8]. Local taxes that may arise from the existence of this tourism sector are hotel taxes [9]. Hotel tax is a tax on services provided by a hotel [9]. The tax is a leading source of revenue because hotels or inns are the main supporting sector in tourism. Accommodation is very important for tourists who are visiting an area [10], and hotels and the like are accommodation facilities for tourists to rest or stay for a certain period of time.

Considering this phenomenon, there is a need to explore further the role of domestic and international tourist visits in increasing tax revenue from the hotel sector in the city of Bandung. Important for local governments that depend on the tourism industry [11] to understand the role of tourist visits, so that local tax revenues can be used for regional development and local government operations [12].

2 Literature review

2.1 Hotel and hotel tax

According to the provisions in Law number 28 of 2009, hotel refers to facilities that provide lodging/resting services and various other related services in return, including motels, inns, tourism huts, tourism guesthouses, boarding houses, lodging houses, and similar, with the number of rooms exceeding 10 [9]. This hotel is a form of accommodation that is managed commercially and professionally, and is intended to meet customer needs in terms of lodging, food and beverages, entertainment such as night clubs, discos, and a variety of other interesting services [13]. On the basis of these two definitions, it can be concluded that the services provided by the hotel include more than just lodging, covering various facilities according to customer preferences and entertainment. Therefore, hotels or lodging services have a very important role in the ever-growing tourism industry [14].

Hotel owners are one of the tax subjects who are required to collect and pay hotel tax. In accordance with Bandung City Regional Regulation number 20 of 2011 concerning Regional Tax, hotel tax refers to taxes imposed on services provided by hotels [15]. The hotel tax rate in the city of Bandung, including hotels, motels, inns, tourism huts, tourism guesthouses, boarding houses, and similar, has been set at 10 percent. The object of hotel tax in the city of
Bandung involves services provided by hotels that involve payment, as well as supporting services that are part of hotel facilities that aim to provide comfort and satisfaction to customers, including sports and entertainment facilities. These supporting services include telephone, facsimile, internet, photocopying, laundry, ironing, transportation, and other similar facilities provided or operated by the hotel.

2.2 Hypothesis development

Tourists refer to a group of individuals who travel and visit a place without the intention of settling there, or simply staying temporarily at that destination [16]. There are two types of tourists, namely domestic tourists and foreign tourists. Foreign tourists are foreigners who travel and arrive in other countries that are not their place of residence [17]. On the other hand, domestic tourists are residents of a country who travel within the territorial boundaries of their own country, without crossing the country's borders, and without foreign elements in terms of nationality, currency used, or travel documents owned [17]. The classification of tourists into domestic tourists and foreign tourists is important in the context of the tourism industry. Domestic tourists make a positive impact on the domestic economy by spending their money on vacations within the country, strengthening the local tourism industry, and creating jobs. On the other hand, foreign tourists bring foreign exchange to the country they visit, which can be used for investment and development. Both types of tourists have an important role in supporting the growth and development of a country's tourism sector as well as contributing to regional and national income.

The arrival of travelers, both domestic and foreign, to a destination has a positive effect that permeates various economic sectors in the region. The large number of tourist visits contributes significantly to the welfare of the local community and the development of the region [18]. In addition, for local governments, such as the Bandung city government, tourist visits will affect the revenue obtained from related sectors, such as hotel taxes. Hotel tax revenue comes from the services provided by the hotel to guests. Tourists who spend more than one day in the city of Bandung will generally take advantage of hotel services for a place to stay. Therefore, with the increase in the number of tourists visiting, it is expected that the revenue from hotel tax will increase significantly.

Some previous research such as Widyaningsih and Budhi [19], Purnomo et al. [20], and Mukti & Silviana [21] it has been found that tourist visits have a significant influence on the growth of hotel tax revenues, so the following hypothesis is proposed:

\[ H_1: \text{Domestic tourist arrivals affect the growth of hotel tax revenue in the city of Bandung} \]
\[ H_2: \text{Foreign tourist visits affect the growth of hotel tax revenue in the city of Bandung} \]

3 Research methods

This study seeks to explain the growth of hotel tax revenue in Bandung City with the explanatory variables being domestic and foreign tourist visits. Thus, this research is causality with a quantitative data approach. The quantitative data in this study is secondary data obtained from the Central Bureau of Statistics, the Bandung City Regional Revenue Management Agency, and the Bandung City Culture and Tourism Office. The data is time series with an observation period from 2004 to 2021. Here is an overview of the research model:
This research was analyzed by Structural Equation Modelling – Partial Least Square (SEM-PLS). The tool that analyzes research data is with WarpPLS. To produce accurate research results, several assumptions must be met, such as godness of fit.

4 Results and discussion

4.1 Results

4.1.1 Descriptive statistics

Before analyzing the data, first the data that has been obtained needs to be explained through the use of descriptive statistics. In table 1 below, we present descriptive statistical testing results for data on domestic tourist visits, foreign tourist arrivals, and hotel tax revenue growth.

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>GT</td>
<td>18</td>
<td>-0.455</td>
<td>0.319</td>
<td>0.111</td>
<td>0.176</td>
</tr>
<tr>
<td>DT</td>
<td>18</td>
<td>1.241,416</td>
<td>8.175,221</td>
<td>4.256,676,833</td>
<td>2.034,839</td>
</tr>
<tr>
<td>FT</td>
<td>18</td>
<td>30.210</td>
<td>278.420</td>
<td>153.403,389</td>
<td>72.229</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
<td>18</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Based on table 1, several things can be known as follows: a) domestic tourist visits have a minimum value of 1,241,416, a maximum value of 8,175,221, a mean value of 4,256,676,833, and a standard deviation of 2,034,839; b) foreign tourist visits have a minimum value of 30,210, a maximum value of 278,420, a mean value of 153,403,389, and a standard deviation of 72,229; c) Hotel tax revenue growth has a minimum value of -0.455 or -45.52%, a maximum value of 0.319 or 31.81%, a mean value of 0.111 or 11.10%, and a standard deviation of 0.176 or 17.56%.
Fig. 2. Increase in hotel tax revenue.

Fig. 3. Domestic tourist visit to Bandung City.

Fig. 4. Foreign tourist visit to Bandung City.
In the graph of hotel tax revenue growth above, you can see fluctuating trends. The lowest revenue growth occurred in 2021, as presented in table 1 at -45.52% and the largest revenue growth occurred in 2007 at 31.86%. The minus growth occurred due to the Covid-19 pandemic. This was the worst growth during the observation period of this study.

Based on figure 3, we can see the graph of domestic tourist visits, foreign tourist visits, and hotel tax revenue growth in the city of Bandung from 2004 to 2021. In the visit of domestic tourists to the city of Bandung, there is an increasing trend although fluctuating with the lowest achievement occurring in 2006, as revealed in table 1 that in that year the number of visits only reached 1,241,416 peoples. While the highest domestic tourist visits occurred in 2019 which reached 8,175,221 peoples.

In foreign tourist visits to the city of Bandung, there is an increasing trend but as fluctuating as domestic tourist visits. The lowest achievement occurred in 2020, as revealed in table 1 that in that year the number of foreign tourists visits only reached 30,210 people. While the highest domestic tourist visits occurred in 2019 which reached 278,420 people.

4.1.2 Model fit analysis

The following are presented the results of the model fit analysis analysis which aims to find out that the model created has met good model standards.

Table 2. Results of model fit analysis.

<table>
<thead>
<tr>
<th>Description</th>
<th>Cut value</th>
<th>Result</th>
<th>Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average path coefficient</td>
<td>P=0.010</td>
<td>0.404</td>
<td>Model Fit</td>
</tr>
<tr>
<td>Average R-squared (ARS)</td>
<td>P&lt;0.001</td>
<td>0.578</td>
<td>Model Fit</td>
</tr>
<tr>
<td>Average adjusted R-squared (AARS)</td>
<td>P&lt;0.001</td>
<td>0.522</td>
<td>Model Fit</td>
</tr>
<tr>
<td>Average block VIF (AVIF)</td>
<td>acceptable if &lt;= 5, ideally &lt;= 3.3</td>
<td>1.022</td>
<td>Ideal</td>
</tr>
<tr>
<td>Average full collinearity VIF (AFVIF)</td>
<td>acceptable if &lt;= 5, ideally &lt;= 3.3</td>
<td>2.504</td>
<td>Ideal</td>
</tr>
<tr>
<td>Tenenhaus GoF (GoF)</td>
<td>small &gt;= 0.1, medium &gt;= 0.25, large &gt;= 0.36</td>
<td>0.761</td>
<td>Large</td>
</tr>
<tr>
<td>R-squared contribution ratio (RSCR)</td>
<td>acceptable if &gt;= 0.9, ideally = 1</td>
<td>0.988</td>
<td>Acceptable</td>
</tr>
<tr>
<td>Statistical suppression ratio (SSR)</td>
<td>acceptable if &gt;= 0.7</td>
<td>1.000</td>
<td>Acceptable</td>
</tr>
<tr>
<td>Nonlinear bivariate causality direction ratio (NLBCDR)</td>
<td>acceptable if &gt;= 0.7</td>
<td>0.750</td>
<td>Acceptable</td>
</tr>
</tbody>
</table>

Table 2 is the result of model fit testing consisting of 9 criteria. Based on the threshold, it can be said that all model criteria are well met.

4.1.3 Structural model testing

Furthermore, structural model testing will be carried out to see the influence of each independent variable on the dependent variable. The following is presented in table 3.

Table 3. Structural model testing.

<table>
<thead>
<tr>
<th>Relationship path</th>
<th>Coefficient</th>
<th>P-Value</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domestic tourist arrivals → increase in hotel tax revenue</td>
<td>-0.047</td>
<td>0.420</td>
<td>Insignificant</td>
</tr>
<tr>
<td>Foreign tourist arrivals → increase in hotel tax revenue</td>
<td>0.762</td>
<td>&lt;0.001</td>
<td>Significant</td>
</tr>
</tbody>
</table>
Based on structural model testing in table 3 above, it can be seen that domestic tourist visits do not have a significant effect on increasing hotel tax revenue in Bandung. Meanwhile, foreign tourist visits with a coefficient of 0.762 have a positive and significant effect on increasing hotel tax revenue in Bandung.

4.2 Discussion

The average visit of foreign tourists to the city of Bandung for the period 2004 to 2021 per year is around 153 thousand. This number is still very far when compared to domestic tourist visits which reached an average of more than 4 million. Judging from the graph in figure 4, it clearly shows that the trend shows fluctuating numbers. There was even a very drastic decline in 2021 due to the Covid-19 pandemic. The decrease reached 45.52%. Although the difference is quite far compared to domestic tourist arrivals, the growth rate of foreign tourist visits has a significant influence on the growth of hotel tax revenue in Bandung.

In accordance with the findings, that partially foreign tourist visits have a significant effect on the growth of hotel tax revenue in the city of Bandung. The more foreign tourists who stay at hotels, the higher the growth in revenue generated from hotel taxes. Many manacegara tourists who come to Bandung use hotel services or the like to stay. They visited for several days so they needed lodging services. This research is in line with Widyaningsih and Budhi's research [19], Purnomo et al. [20], and Mukti and Silviana [21] which has found that tourist visits have a significant influence on hotel tax revenue. Previous findings of researchers revealed that increased foreign visits can have a positive impact on hotel tax revenue growth.

Foreign tourists have a large contribution in boosting hotel tax growth due to the following: 1) longer stay duration compared to local tourists, 2) higher spending, 3) choice of higher classrooms, 4) more use of hotel facilities. Thus, these habits can contribute strongly to increasing hotel tax revenue in Bandung.

The growth of hotel taxes can stimulate local economic growth. Hotel tax is an important source of revenue for local governments. These tax revenues can be used to finance infrastructure, education, health, and other public service projects that support economic growth.

5 Conclusion

Based on the analysis presented earlier, it can be concluded that foreign tourist visits have a significant impact on increasing hotel tax revenue individually. On the other hand, local tourist visits do not have a significant influence on hotel tax revenue in the city of Bandung. Therefore, the Bandung city government is expected to continue to strive to increase the number of tourist visits, especially from foreign tourists, which has a large contribution in increasing hotel tax revenue. These efforts can involve more intensive promotion strategies, adding tourist attractions, improving tourism infrastructure, and various other steps.

References

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