

ASEAN Tourist In Bali, Indonesia; Trend Analysis The Implementation Of Mathematical Methods In Tourism Sector

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Abstract: Bali is one of the areas of tourism development, given the considerable potential possessed by Bali, and high tourism demand in the island of Bali. Tourism itself is one of the significant foreign exchange earners for Indonesia. This research has several objectives to find out; a). how many tourist arrivals from ASEAN countries b). what is the pattern of tourist arrivals from ASEAN countries c). and based on the visiting pattern, the number of tourist arrivals from ASEAN countries for the next few years. To get the forecast of tourist arrivals in Bali, secondary data in the form of time series of foreign tourist arrivals from ASEAN member countries from 2014 - 2018 were processed using the last square model and this study uses the last square method used to get the regression coefficient estimator linearly. The results showed that Singapore had experienced a negative trend, while for tourists coming from Thailand, the Philippines and other ASEAN-origin tourists even though the quantity was not too much but the trend line showed that there was an increase from year to year. And tourists from Malaysia are very potential tourists, seen from the positive trends.

Index Terms: Bali, tourism, arrivals, tourists from ASEAN countries

1. INTRODUCTION

OVER Over the past six decades, tourism has experienced expansion and diversification, so that becoming one of the largest and the fastest growing economic sectors in the world. Many new tourist destinations have emerged in Asia and Africa, complementing the traditional favorite tourism destinations in Europe and North America [1]. Bali is one of the areas of tourism development, given the considerable potential possessed by Bali with high tourism demand in Bali [2]. Tourism industry in Bali has increased significantly since 1970's [3]. Tourism is one of the major foreign exchange earners for Indonesia. Tourism activities can have a positive and negative impact on the surrounding community both economically, ecologically and socially culture. Tourism as one of the development activities is strived to be in line with the concepts and principles of sustainable development. Indonesia is divided into 3 (three) areas of tourism development. First, the West region is the Sumatra and West Java regions, the second is the Central region, which is Kalimantan, Central Java, East Java and Bali, and the third is the eastern region, namely Sulawesi, Irian Jaya, Nusa Tenggara and the Halmahera Islands [4]. The Directorate General of Tourism in 1999 prioritized the development of tourism in 10 (ten) national tourism destinations, namely DKI Jakarta, West Java, Central Java and Yogyakarta, East Java, Bali, North Sumatra, West Sumatra, North Sulawesi and South Sulawesi. And in the framework of development in 2009 set 13 leading MICE destinations (meetings, incentives, conventions, and exhibitions), namely Jakarta, Yogyakarta, Surabaya, Bali, Balikpapan, Medan, Batam-Bintan, Padang-Bukittinggi, Makassar, Manado, Palembang, Mataram, and Bandung. The establishment of 13 leading MICE destinations has encouraged hundreds of national and international events in Indonesia each year.

Determination of government policies in tourism development is based on 2 main points, namely the availability of infrastructure, facilities and other facilities as well as the magnitude of tourism potential in the area concerned and the principle of equitable development so that tourism development can be carried out simultaneously without ignoring the potential of the resources owned by each region [5]. This policy makes the islands of Java and Bali become the main tourist destination, because the islands of Java and Bali are the entrance of foreign tourists through the main cities in the region such as Jakarta, Yogyakarta, Denpasar, aside from the potential of the area for tourism concentration is also not apart from the availability of an adequate infrastructure network, this also causes this region to have a better value of tourism services compared to other regions, for example, the completeness of transportation, communication, service facilities and accommodation facilities and infrastructure. However, as the largest archipelagic country in the world, the national tourism sector is developed not only to encourage economic growth, but has broad objectives covering socio-cultural, political and defense aspects [6]. Nevertheless the economic goals are very prominent because the non-economic aspects of tourism development are very closely related to their economic goals, through the creation of the concept of community-based tourism. 2) Increasing community participation through increasing employment absorption in tourism management. Based on the background that has been submitted, the main objective of the study is to make a tourist forecast forecasting tour especially tourists from ASEAN member countries.

2 METHODOLOGY

The type of data used in the preparation of this paper is secondary data. Data collection techniques in the preparation of this paper is through literature study or literature study. Literature study is an activity of collecting data derived from scientific work, text books, reporting, legislation and writings related to papers. Literature study or literature study is intended to get an overview of the problems in tourism, especially on the island of Bali. Secondary data used in data processing is the data series of arrivals of foreign tourists specifically tourists from the country of origin are ASEAN

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member countries. The study limited data sources only to Malaysia, the Philippines, Singapore, Thailand and other Asean countries (Brunei Darussalam, Cambodia, Laos, Myanmar and Vietnam) To get the forecast of tourist arrivals in the island of Bali, secondary data in the form of time series data on the arrival of foreign tourists from ASEAN member countries from 2014 - 2018 are processed using the least square model. The Least Squares method is used to get the linear regression coefficient estimator.

3 DISUSSION

Bali Province consists of Bali Island and small islands with an area of 563,286 Ha or 0.29% of the total area of the Indonesian archipelago. The small islands are Nusa Penida Island, Nusa Ceningan Island, Nusa Lembongan Island, Serangan Island in the south facing the Indian Ocean and Menjangan Island in the northern hemisphere of Bali Island facing the Java Sea. Figure 1 shown the tourist sites of Bali.



Figure 1. Tourist site of Bali
Sources : BPS.Bali.go.id

Bali is one of the small islands located in the waters of Indonesia which is thought to have a very large impact on the world of tourism in Indonesia. The attraction of the island of Bali that is able to distinguish it from other regions in Indonesia, among others, is the natural beauty, culture, and a variety of culinary that is typical in Bali. Economic growth in Indonesia, especially in Bali, has been rapid and has contributed insignificantly to the welfare of society [7]. Therefore the tourism industry is an integration of various business fields which together produce products or services that tourists directly or indirectly need in their visits. Efforts to improve the quality of both services and facilities on tourism objects on an ongoing basis continue, so that Bali remains a favorite place as a vacation spot. Local governments, tourism actors, and the community together make Bali a peaceful island by always maintaining security and comfort so that tourists who visit Bali can really enjoy their vacation safely and comfortably [8] Bali is one of the famous tourist attractions in Indonesia. Many local and foreign tourists come. The beauty of the island of Bali that makes them arrive as well as ASEAN foreign tourists. The number of tourist arrivals from ASEAN has fluctuated from year to year, the following data shows fluctuations in the arrival of tourists from ASEAN from January 2014 to December 2018.

TABLE 1. DIRECT FOREIGN TOURIST ARRIVALS TO BALI BY NATIONALITY, 2014-2018

NO	NATIONALITY	2014	2015	2016	2017	2018
1	Malaysia	233.487	190.381	178.377	165.396	194.760
2	Philippina	32.727	33.906	39.411	47.815	88.344
3	Singapore	178.174	146.660	135.902	124.779	144.559
4	Thailand	30.247	28.214	31.828	33.736	47.367
5	Asean yang lain	19.134	23.825	30.910	7.538	78.708
	Total	483.487	422.986	416.428	379.264	553.728

Resource : Bali.Bps.go.id processed, 2019

Based on the table above, it appears that the most visits to the island of Bali from 2014-2018 are tourists from Malaysia as much as more than 50% of the total number of tourists. While the fewest visits were tourists from other countries (Myanmar, Laos, Vietnam, Brunei Darussalam and Cambodia). Then the Least Square formula with input data for 2014 - 2018, the trends of the arrival of tourists from each country are as follows, Table

TABLE 2. TRENDS OF MALAYSIAN TOURIST

Y ; 110330,7 + 9262,971 X	
Tahun	Trand
2014	64015,81
2015	82541,752
2016	101067,7
2017	119593,64
2018	138119,58

Resource : Bali.Bps.go.id processed, 2019

TABLE 2. TRENDS OF PHILIPPINES TOURIST

Y ; 7920,833+ 331,0429 X	
Tahun	Trand
2014	6927,7048
2015	7589,7905
2016	8251,8762
2017	8913,9619
2018	9576,0476

Resource : Bali.Bps.go.id processed, 2019

TABLE 2. TRENDS OF SINGAPURE TOURIST

Y ; 39038,33 - 974,514 X	
Tahun	Trand
2014	41961,876
2015	40012,848
2016	38063,819
2017	36114,79
2018	34165,762

TABLE 5. TRENDS OF THAILAND TOURIST

Y ; 12122,33 + 888,2286 X	
Tahun	Trand
2014	7681,1905
2015	9457,6476
2016	11234,105
2017	13010,562
2018	14787,019

Resource : Bali.Bps.go.id processed, 2019

TABLE 6. TRENDS OF ANOTHER ASEAN COUNTRY

Tahun	Trand
2014	698,66667
2015	1475,6667

2016	2252,6667
2017	3029,6667
2018	3806,6667

Resource : Bali.Bps.go.id processed, 2019

To see the trend of tourist arrivals from ASEAN countries, tourists from Malaysia are contributing the highest number of tourists and the trend looks very good. While tourists from the Philippines and other countries have a fairly good trend, even though the number of Filipino tourists contributes to a significant number of tourists. Tourists from Thailand experience an increasing trend even though very little. And this does not happen to tourists from Singapore where the trend has decreased as can be seen in Figure 2

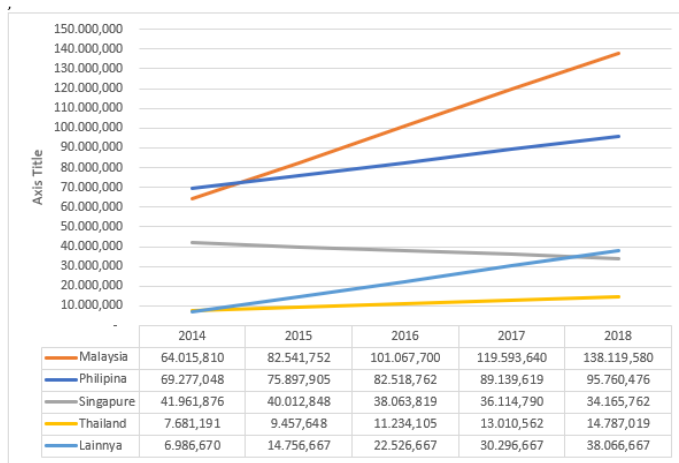


Figure 2. Trend of ASEAN Tourists

4 CONCLUSION

Based on the results of forecasting the arrival of tourists from ASEAN countries with the least square method it can be concluded that tourists from Singapore have experienced a negative trend, thus it can be predicted that tourists from the two countries will be increasingly reduced in the following years. This could be due to the saturation of the attractions that are served on the island of Bali, in addition to that lifestyle shifted to a type of tourism that shows one's social status eventually shifts the interest of tourists to more exclusive types of tourism. While for tourists coming from Thailand, the Philippines and other tourists from ASEAN countries, even though the quantity is not too much, the trend line shows that there is an increase from year to year. It's just that the addition of each year is still not too significant. Thus it appears that markets in these three countries are very potential to be processed. And tourists from Malaysia are very potential tourists, seen from the positive trends and the increase in the number of visits that continues to increase significantly from year to year, given the ability and willingness of people in these four countries to visit Bali is quite high.

REFERENCES

- [1] Antara, M. Sumarniasih, M.S. 2017. Role of Tourism in Economy of Bali and Indonesia. *Journal of Tourism and Hospitality Management*, 5(2), pp. 34-44
- [2] Sutawa. 2012. Issues on Bali Tourism Development and Community Empowerment to Support Sustainable Tourism Development. *Procedia Economics and Finance*. 4. pp. 413-422

- [3] Pratiwi D,P,E. Ayomi P,R. Candra K,D,P. 2017. *Pemberdayaan Tari Sanghyang Di Banjar Jangu, Desa*
- [4] Aris Suprpto, 2005, Analisis penawaran dan permintaan wisata dalam pengembangan potensi pariwisata di Kraton Jokjakarta, Semarang
- [5] Untari, D.T & Satria, B. (2019). Measuring website effectiveness in communicating tourism destinations in Jakarta, Indonesia. *African Journal of Hospitality, Tourism and Leisure*, (online) Volume 8(4), 1-16.
- [6] Untari, D.T. (2019). The development strategy of Betawi Eco-Culinary Tourism as a potential business in DKI Jakarta, Indonesia. *African Journal of Hospitality, Tourism and Leisure*, (online) Volume Volume 8 (Special Edition CUT), 1-9.
- [7] Utama, IGBR. 2018. PERCEPTION OF EUROPEAN TOURIST TOWARD BALI AS TOURISM DESTINATION. *Jurnal Manajemen dan Kewirausahaan*, 20(1). P. 1-5
- [8] DEWI PARAMITA ARISANDI, Ni Gusti Ayu; WIRAWAN, I Gede Putu; LINAWATI, Linawati. The Image of Bali Tourism in Social Networking Media. *E-Journal of Tourism*, [S.l.], sep. 2014. ISSN 2407-392X. Available at: <<https://ojs.unud.ac.id/index.php/eot/article/view/19425>>. Date accessed: 20 nov. 2019. doi: <https://doi.org/10.24922/eot.v1i2.19425>.