

# *Impact of Tourism on Economy Development in Central Bangka Regency, Bangka Belitung*

Dhani Effendi

Department of Regional and Rural Development Planning,  
University of Sumatera Utara  
North Sumatra, Indonesia

Prof. Dr. Suwardi Lubis, MS

Department of Communication Science, Faculty of Political and Social Science  
University of Sumatera Utara,  
North Sumatra, Indonesia

Prof. Dr. H. B. Tarmizi, SU

Department of Economic Development, Faculty of Economics and Business  
University of Sumatera Utara,  
North Sumatra, Indonesia



**Abstract** - This study aim to find potential that can be developed in tourism from nature, culture and human resources so that the government of Central Bangka Regency able to manage tourism and determine alternative tourism development strategy in Central Bangka Regency towards regional economy development. Population and sample of the research are people in tourism area in Central Bangka Regency. The analysis used in this research is regression model. The result of research shows that tourism development which include demand and supply factor have positive and significant influence to economic development of Central Bangka Regency.

**Keywords** - Economy Development, Supply and Demand, Tourism

## I. INTRODUCTION

Regional development is an integral part of national development. In managing regional development needs to be supported by several sources of finance originating from the area concerned, then required some financial policies taken by the government to regulate all the concept of development area. The era of regional autonomy requires the concept of regional development that has the ability to empower the potential and local character that can compete both nationally and internationally.

Central Bangka Regency was established on February 25, 2003 based on Law No 5/2003. One of the development sectors currently being developed in Central Bangka Regency is tourism sector. Based on data from the Central Bureau of Statistics (2015), the average increase in the number of tourists is 9% per year. The growth of tourist numbers is also followed by an increase in Room Occupancy Rate. Throughout the year 2014 ROR for star-rated hotels was in the range of 46.79%, higher than last year's ROR at 44.45%.

Tourism development in Central Bangka Regency is expected to be a value added that can be felt for the community economically, so it is important to do efforts that can improve the welfare conditions of the community by participating and utilizing the availability of local attractions.

Planning is essentially conscious, organized and continuous effort to choose the best alternatives from a number of alternatives to achieve a particular goal [1]. Etzioni[2] stated that in planning theory there are several typologies, such as rational planning model; incremental planning model; and strategic planning model. Concepts in planning for the future, especially in a plan are: 1) wellbeing 2) social justice; 3) equity [3].

The main components in the planning process are comprehensively as follows: Problem diagnosis (data collection-identification problem), Articulation of goals (goal setting), Prediction and Projection, Alternative "Design" (alternative development), Planning Test (alternative selection) Evaluation (monitoring-control), Implementation.

Freuler in Yoeti [4] defines the notion of tourism by giving a restriction that "Tourism in the modern sense is a phenomenon of the present age based on the need for health and air change, conscious judgment and fostering love for the beauty of nature and in particular due to the increasing association various nations and classes of human society as a result of commercial development, as well as advances in transport technology ". The main elements of tourism are travel, place, travel activity, time, destination and fulfillment [4].

Tourist attraction is a place that tourists visit because it has the charm, both natural, and man-made, such as natural beauty / mountains, beaches, flora and fauna, zoos, historic buildings, monuments, temples, dances and attractions as well as other distinctive cultures [5].

According to Tarigan [6], the economy development of the region is a development in the form of increase in overall community income in the region, such as the increase of all added value. Development should therefore be investigated as a multidimensional process involving the

reorganization and reorientation of all economy and social systems [7]. Development involves three interconnected activities [8]. Firstly, it leads to an increase in prosperity and increase in income and welfare as a goal, with attention pressure at the greatest level (with the smallest income) in society. Second, choose the appropriate method to achieve that goal. Third, restructuring the community with the intention to create strong socio-economy growth. In the development of tourism sector to regional economy development in Central Bangka Regency is based on two aspects, demand and supply.

### A. Hypothesis

The demand and supply factors of tourism development have a positive and significant impact on the economy development of Central Bangka Regency.

### B. Research Question

What is the effect of tourism on regional economy development in Central Bangka Regency?

## II. MATERIAL AND METHOD

This study is based on the type and analysis using quantitative data or qualitative data that is scored (scoring). The type of research according to the level of explanation is quantitative / associative / correlational, ie data analysis using inferential statistics, with the aim of knowing the level of relationship and influence between independent variables with dependent variables. because this study aims to determine the relationship between two variables or more [9].

The research was conducted in all subdistricts of Central Bangka Regency which have various kinds of tourism object, such as natural tourism object, cultural tourism (historical heritage, legend and pilgrimage) and special interest (agro tourism, recreation, rock climbing, and natural cave). The sub-districts that are the research location are Koba Sub-district, Lubuk Besar Sub-district, Pangkalan Baru Sub-District, Namang Sub-District, Sungai Selan Sub-district, and Simpang Katis Sub-District. The population in this study is the entire community in the location of tourist attractions of Central Bangka Regency, the sampling is done by probability sampling.

Tabel 1 Population and Sample

| No | Sub-district` | Population | Sampel                         |
|----|---------------|------------|--------------------------------|
| 1  | Koba          | 38376      | $38376/184720 \times 100 = 21$ |
| 2  | LubukBesar    | 26666      | $26666/184720 \times 100 = 14$ |
| 3  | PangkalanBaru | 46173      | $46173/184720 \times 100 = 25$ |
| 4  | Namang        | 15102      | $15102/184720 \times 100 = 8$  |

|   |              |        |                                |
|---|--------------|--------|--------------------------------|
| 5 | Sungai Selan | 33406  | $33406/184720 \times 100 = 18$ |
| 6 | SimpangKatis | 24997  | $24997/184720 \times 100 = 14$ |
|   | Total        | 184720 | 100                            |

The data in this study are programs and efforts that have been done by the government, public and private sector in tourism development in Central Bangka Regency. In addition, data on the level of community welfare and revenue from tourism objects in the development of the

region of Central Bangka Regency. To obtain the primary data, the questionnaire technique was used by spreading directly to the respondents by using Likert scale. To test the effect of tourism development on economy development of Central Bangka Regency by using multiple linear regression analysis

Tabel 2 Operational Defenition

|                     |                                                                                                                                                                                                                       |
|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Tourism Development | Efforts made by the government in improving and developing the tourism sector in Central Bangka (Likert scale).                                                                                                       |
| Demand              | The main factors and other factors that affect tourism demand in Central Bangka Regency. Indicators of tourism demand are: price, income, social culture, social politics, and family intensity (Likert scale).       |
| Supply              | The main factors and other factors that influence tourism offerings in Central Bangka Regency. Indicators of tourism offerings are: tourist attraction, transportation, facilities, and institutional (Likert scale). |
| Economy development | The impact of the tourism sector on community economic development. Regional economy development indicators are: community empowerment and community welfare.                                                         |

### III. RESULT

Table 3.1 Growth of Sector Contributions and GRDP at Current Prices and Constant Prices 2010 to 2014

| NO      | Sector                                                                 | Growth    |            |
|---------|------------------------------------------------------------------------|-----------|------------|
|         |                                                                        | Current % | Constant % |
| A       | Agriculture, Forestry and Fisheries                                    | 20,57     | 10,83      |
| B       | Mining& quarrying                                                      | 4,60      | 0,42       |
| C       | Processing industry                                                    | (6,73)    | (9,68)     |
| D       | Procurement of Electricity and Gas                                     | 49,00     | 6,67       |
| E       | Water Supply                                                           | 15,22     | 5,78       |
| F       | Construction                                                           | 11,02     | 3,03       |
| G       | Large and retail trade, repair and maintenance of cars and motorcycles | 9,09      | 4,81       |
| H       | Transportation and Warehousing                                         | 7,56      | (0,39)     |
| I       | Accomodation, Food and Beverage                                        | 17,04     | 7,40       |
| J       | Information and Telecommunication                                      | 11,55     | 8,26       |
| K       | Financial services                                                     | 19,91     | 14,50      |
| L       | Real estate                                                            | 14,61     | 6,92       |
| M,N     | Service Company                                                        | 14,97     | 8,21       |
| O       | Administration of Government, Defense and Social Security              | 14,01     | 7,53       |
| P       | Educational Services                                                   | 18,20     | 7,90       |
| Q       | Health Services and Social Activities                                  | 14,35     | 7,24       |
| R,S,T,U | Other service                                                          | 15,00     | 6,22       |
|         | GRDP                                                                   | 7,64      | 1,52       |

Source: GRDP byCentral Bangka 2010-2014

From the table above shows that the growth rate of GRDP of Central Bangka Regency during the period 2010-2014 shows a slowdown every year. GDP growth in 2011

was 6.01 percent, in 2012 experiencing a slowdown of 0.99 points where growth of only 5.02 percent. Likewise in 2013

only grew by 4.21 percent and more concern in 2014, GDP growth of 1.52 percent.

In the last five years, the growth rate of GDP of Bangka Tengah Regency reached its highest point in 2011, driven by the tin industry as the leverage of Central Bangka's economy where it experienced its heyday when the demand and selling price were high for tin, boosting the supply of tin ore from miners. However, during that period the lowest growth of Central Bangka was in 2014 at 1.52 percent. Central Bangka Regency's economy began to show a considerable decline compared to the growth of previous years. This is driven by the processing industry business field which experienced a very deep production decline. This condition is caused by one of the tin metal industry companies that are closed and the more strict impact of the implementation of tin export regulation as stipulated in the Regulation of the Minister of Trade (Permendag).

#### A. Tourism

The Tourism Development Plan follows the 3 A Development Concept (Access, Accommodation, Attraction). The development plan of tourist area in Central Bangka Regency is done through the utilization of beautiful white sandy beaches as an attraction for local and foreign tourists, the provision of transportation access that connects Central Bangka Regency with other tourist destinations both inside and abroad, Central Bangka Regency culinary also can attract tourists.

Central Bangka regency has an interesting tour where almost all parts of the island has many beaches are sloping and beautiful with fine white sand. The condition of tourism in Central Bangka Regency consists of coastal and river tourism, nature / hills and forests and artificial tourism. Artificial tourism is located in the Village Belubang, Pangkalanbaru District of 156.97 Ha. The distribution of nature tourism in Central Bangka Regency is illustrated in the following table:

Table. 3.2 Distribution of Nature Tourism in Central Bangka Regency

| No    | Sub-district  | Area (Ha) |
|-------|---------------|-----------|
| 1     | Koba          | 525,63    |
| 2     | Lubuk Besar   | 408,1     |
| 3     | Namang        | 8,49      |
| 4     | Pangkalanbaru | 128,95    |
| 5     | Sungaiselan   | 337,09    |
| TOTAL |               | 1.408,26  |

Source: Regional Spatial Plan of Central Bangka Regency Year 2011-2031

#### B. Tourism Potential

Promising tourism potential in Central Bangka Regency is included in the Regional Government's Medium Term Development Plan (RPJMDPD) 2016. Tourism potential in Bangka Tengah Regency of Bangka Belitung Province can be seen in Figure 1.

The potential of tourism is quite promising, Central Bangka Regency continues to explore the potential of tourism, such as:

1. Ketawai Island
2. Tanjung Berikat Beach
3. Relawan Forest
4. Sadap Waterfall

5. Ex Mining Perlant
6. Mangrove Forest

Bangka Belitung Island has many different tourism potentials. In addition to the benefits of coastal tourism, Bangka Belitung Island also has the potential of historical tourism, as follows:

1. Pelepas Island Lighthouse
2. The Dutch Tomb (D.W.Becking)
3. Pahlawan Monument
4. Sumur Tujuh

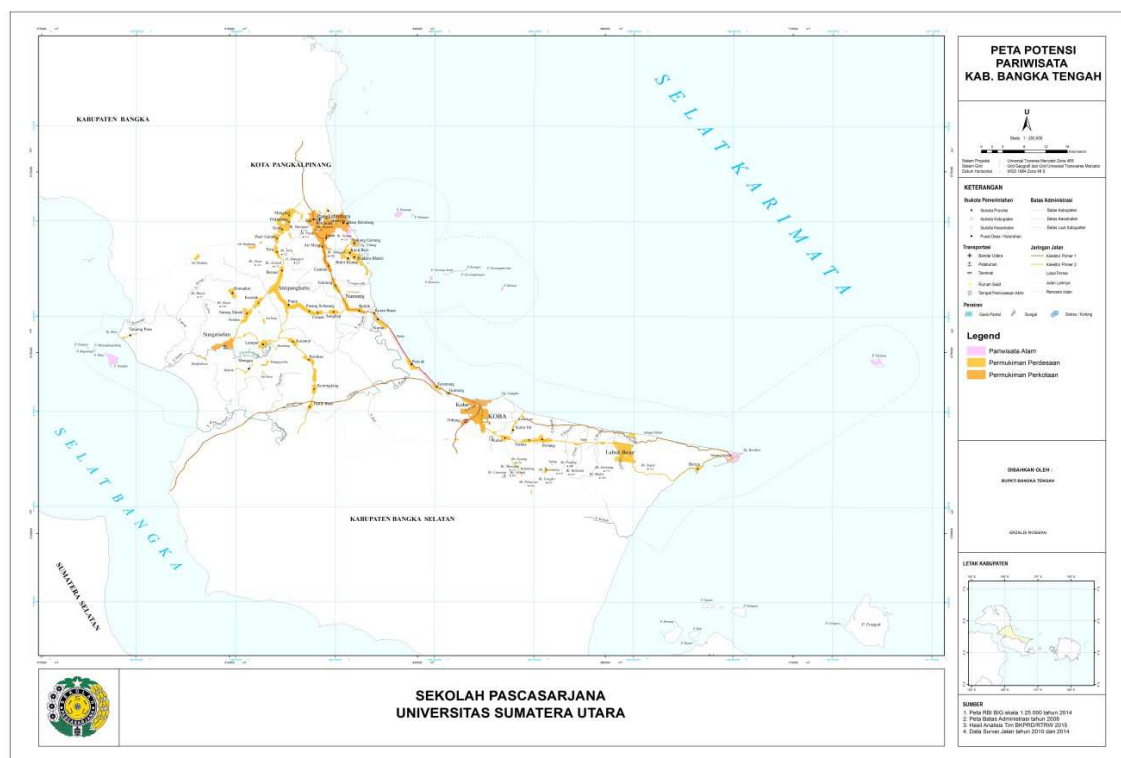


Figure 1 Map of Tourism Potential of Central Bangka Regency

## The Influence of Tourism Development on Economy Development

### A. Normality Test

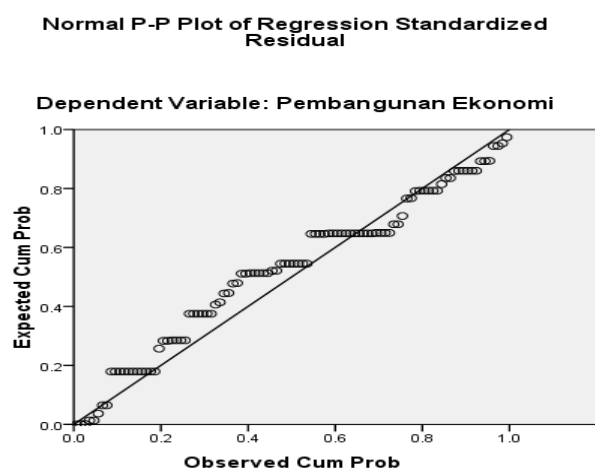


Figure 2. Normal P-Plot of Regression Standardized Residual Economy Development of Central Bangka Regency

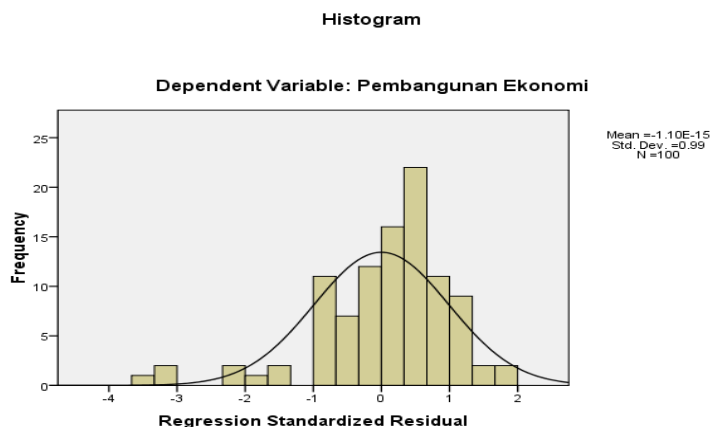


Figure 3 Histogram Economy Development of Central Bangka Regency

The result of the normal graph plot in Figure 2 can be concluded that the data spread around the diagonal line and follow the direction of the diagonal line. This shows normal distributed residual data. Similarly, the histogram graphic results in Fig. 3 show that the residual data is normally distributed as seen from the almost perfect (symmetrical) bell shape.

The statistical tests that can be used to test the residual normality include the non-parametric statistical test Kolmogorov-

Smirnov (K-S). K-S test is done by giving hypothesis:

$H_0$ : Residual data is not normally distributed

$H_a$ : The residual data is normally distributed

With the following criteria

$H_0$  accepted when the significance value (Asymp.Sig) > 0.05

$H_a$  accepted when the significance value (Asymp.Sig) > 0.05

Table 4 Kolmogorov Results - Smirnov Test

|                                  | Unstandardized Residual |           |
|----------------------------------|-------------------------|-----------|
| N                                | 100                     |           |
| Normal Parameters <sup>a,b</sup> | .0000000                | .0000000  |
|                                  | .76263490               | .82491389 |
| Most Extreme Differences         | .132                    | .066      |
|                                  | .079                    | .053      |
|                                  | -.132                   | -.066     |
| Kolmogorov-Smirnov Z             |                         | 1.316     |
| Asymp. Sig. (2-tailed)           |                         | .063      |

a. Test distribution is Normal.

b. Calculated from data.

Source: Primary Data Processed, 2018

The result of statistical test in Table 4 shows that the value of Kolmogorov-Smirnov Z is 1,316 and its significance is 0,063 and its value is above  $\alpha = 0,05$  (Asymp.Sig = 0,063 > 0,05) so that  $H_a$  hypothesis is

accepted which means the residual data is normally distributed.

Table 5 Multicollinearity Test

| Model |        | Collinearity Statistics |       |
|-------|--------|-------------------------|-------|
|       |        | Tolerance               | VIF   |
| 1     | Demand | .761                    | 1.313 |
|       | Supply | .761                    | 1.313 |

a. Dependent Variable: Pembangunan Ekonomi

Source: Primary Data Processed, 2018

The analysis results can be seen that the VIF and tolerance values as follows: variable demand for tourism development factors have a VIF value of 1.313 and tolerance of 0.761. The variable of demand factor of tourism development have value of VIF equal to 1,313 and tolerance equal to 0,761. The result of this analysis shows the tolerance value of the two independent variables of tourism development (demand factor and supply factor) more than 0.10 and VIF value less than 10 so it can be concluded that the independent variable does not occur multicollinearity so

that the model has fulfilled the classical assumption in regression analysis, this is due to the provision that if the VIF value  $<10$  and tolerance  $> 0.10$  then there is no symptoms of multicollinearity then the values of the calculation is in accordance with the determination of VIF and tolerance values.

### B. Heteroscedasticity Test

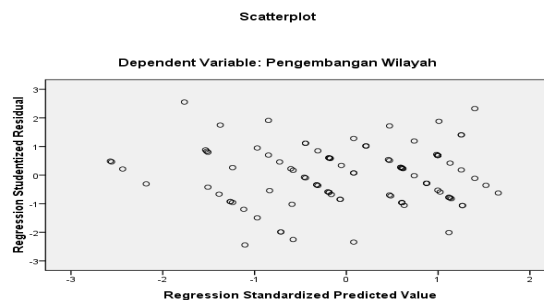


Figure 4 Graph Scatterplots Economy Development Region of Central Bangka Regency

The result of the scatterplots graph in Figure 4 shows that the points spread randomly and spread both above and below the number 0 on the Y axis and did not form a particular pattern, it can be concluded that there is no

heteroscedasticity in the regression model. So it can be concluded that the regression model meets the requirements of the classical assumption test.

### C. Glesjer Test

Table 6 Gelsjer Test

| Model |                   | Unstandardized Coefficients |            | Standardized Coefficients |        | Sig. |
|-------|-------------------|-----------------------------|------------|---------------------------|--------|------|
|       |                   | B                           | Std. Error | Beta                      | t      |      |
| 1     | (Constant)        | 3.113                       | .686       |                           | 4.539  | .000 |
|       | Faktor Permintaan | -.058                       | .031       | -.200                     | -1.840 | .069 |
|       | Faktor Penawaran  | -.083                       | .043       | -.211                     | -1.942 | .055 |

a. Dependent Variable: abs\_res

Source: Primary Data Processed, 2018



The result shows that the parameter coefficient for independent variable of tourism development is not significant, demand factor ( $X_1$ ) = 0,069 >  $\alpha$  = 0,05 and

supply factor ( $X_2$ ) = 0,055 >  $\alpha$  = 0,05. Then it can be concluded regression model there is no heteroscedasticity.

#### D. Coefficient Determination Test Results ( $R^2$ )

Table 7 Economy Development of Central Bangka Regency

| Model | R                 | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|-------------------|----------|-------------------|----------------------------|
| 1     | .739 <sup>a</sup> | .546     | .536              | .77046                     |

a. Predictors: (Constant), Supply and Demand factors

b. Dependent Variable: Economy Development

Source: Primary Data Processed, 2018

The result of calculation of R Square value is 0,546, this means 54,6 percent economy development area in Central Bangka Regency can be explained by independent variable

of tourism development (supply and demand factors) above, while the rest is 45,4 percent explained by other variable not examined in this study.

#### E. Simultaneous Test Results (F Test)

Table 8 Results of Simultaneous Test of Effect of Tourism Development on Economy Development of Regency of Central Bangka

| Model |            | Sum of Squares | Df | Mean Square | F      | Sig.              |
|-------|------------|----------------|----|-------------|--------|-------------------|
| 1     | Regression | 69.180         | 2  | 34.590      | 58.272 | .000 <sup>a</sup> |
|       | Residual   | 57.580         | 97 | .594        |        |                   |
|       | Total      | 126.760        | 99 |             |        |                   |

a. Predictors: (Constant), Supply and Demand factors

Source: Primary Data Processed, 2018

The simultaneous statistical test can be seen from the probability level of 0.000. which <  $\alpha$  = 0.05, which means  $H_a$  accepted. This means that the independent variable of

tourism development (supply and demand factors) is simultaneously significant in explaining the economy development of Central Bangka Regency.

#### F. Partial Test Results (T-test)

Table 9 Partial Test Results Influence of Tourism Development on Economy Development of Central Bangka Regency

| Model |                  | Unstandardized Coefficients |            | Standardized Coefficients |        | Sig. |
|-------|------------------|-----------------------------|------------|---------------------------|--------|------|
|       |                  | B                           | Std. Error | Beta                      | t      |      |
| 1     | (Constant)       | -2.593                      | 1.076      |                           | -2.411 | .018 |
|       | Demand ( $X_1$ ) | .332                        | .049       | .531                      | 6.774  | .000 |
|       | Supply ( $X_2$ ) | .270                        | .067       | .316                      | 4.026  | .000 |

a. Dependent Variable: Economy Development

Source: Primary Data Processed, 2018

In Table 9 the partial test results, as follows:

1. The variable demand factor of tourism development has a significant positive effect on the economy development of Central Bangka Regency.
2. Variable factors of tourism development offer a significant positive effect on the economy development of Central Bangka Regency.



Based on Table 9 can be composed of multiple regression equation as follows:

$$Y = -2.593 + 0.332 X_1 + 0.270 X_2$$

The model of multiple regression equation means:

1. Constant value of -2.593 which means that if there is no independent variable value, in this case the demand factor and tourism supply development factor equal to 0 (zero), the economy development value of Central Bangka Regency will be -2,593 units of score.
2. Demand factor variable ( $X_1$ ) has a beta coefficient value of 0.332 which is marked positive, this means any addition or increase of one unit score variable of demand factor of tourism development will add value of economy development area of Central Bangka Regency equal to 0,332 score unit.
3. The variable of supply factor ( $X_2$ ) has a beta coefficient value of 0.270 which is marked positive, this means any addition or increase of one unit score variable of tourism supply factor will increase economy development value of Central Bangka Regency by 0,270 unit score.

#### **IV. DISCUSSION**

##### **The impact of Tourism Development on Economy Development of Regency of Central Bangka**

The demand for tourism development has a positive and significant impact on the economy development of Central Bangka Regency, with regression coefficient value of 0.332 and has a direct impact which means any addition or increase of one unit of demand factor score of tourism development will increase the economy development value of Central Bangka Regency by 0.332 score units. It is estimated that with the increasing demand for tourism development, the economy development of Bangka Tengah Regency will also increase.

#### **V. CONCLUSIONS AND SUGGESTIONS**

##### **A. Conclusion**

Tourism development which includes demand and supply factor have positive and significant influence to economy development of Central Bangka Regency.

##### **B. Suggestion**

Based on the conclusion, several efforts need to be done for tourism development in economy development of Central Bangka Regency is by continuing to prioritize tourism development by optimizing demand factor and supply factor.

#### **REFERENCE**

- [1] Safi'i, M. 2007. *Strategidan Kebijakan Ekonomi Pembangunan Daerah Perspektif Teoritik*. Malang: Averoes Press
- [2] Etzioni, Amitai 1968, *The Active Society: A Theory of Societal and Political Processes*. New York: Free Press.
- [3] Rasyid, A.N. 2015. *Teori Perencanaan*. <https://aminnurrasyid.wordpress.com/di-buang-sayang/teori-perencanaan>
- [4] Yoeti, Oka A. 1996. *Pengantar Ilmu Pariwisata*. Angkasa. Bandung.
- [5] Adisasmita, H.R. 2010. *Pembangunan dan Tata Ruang*. Graha Ilmu, Yogyakarta.
- [6] Tarigan, R. 2006. *Perencanaan Pembangunan Wilayah*. Edisi Revisi. Bumi Aksara. Jakarta.
- [7] Todaro, M.P. 1998. *Pembangunan Ekonomi di Dunia Ketiga*. Erlangga. Jakarta. Jayadinata, T. Johara. 1992. *Tata Guna Tanah Dalam Perencanaan Pedesaan, Perkotaan dan Wilayah*, Bandung: Penerbit ITB.
- [8] Rusiadi, Nur Subiantorodan Rahmat Hidayat, 2014, *Metode Penelitian: Konsep, Kasusdan Aplikasi SPSS, Evview, Amos, Lisrel, Cet. 2*. Penerbit USU, Medan