International Journal of Applied Business and Economic Research

ISSN : 0972-7302

available at http: www.serialsjournals.com

Volume 15 • Number 23 • 2017

Economic Transformation of Badung Regency in the Tourism Developing of Bali, Indonesia

Made Antara[1] and Made Sri Sumarniasih[2]

[1]*Study Program of Agribusiness, Faculty of Agriculture, University of Udayana, Bali, Indonesia. Email: antara_unud@yahoo.com*
[2]*Study Program of Agroecotechnology, Faculty of Agriculture, University of Udayana, Bali, Indonesia. Email: madesris@gmail.com*

ABSTRACT

Badung is one of the nine regencies/cities in Bali Province, and Bali is one of 34 provinces in Indonesia, becoming a favorite tourist destination in the world. Over the last few years, in the regency of Badung, especially South Badung rapidly growing economic activity of services related to tourism. The purpose of this research is to analyze the economic transformation in the form of economic structure and the absorption of labor in the economy of Badung Regency. The research data used secondary data of time series of five years (2011-2015), sourced from the Statistics Central Bureau of Bali Province and Badung regency, as well as some other agencies. Data collection using documentation method. Data analysis using Shift Share Analysis. The results of the research found that the economy of Badung Regency during the last five years (2011-2015) experienced the transformation of economic structure from agriculture economy (primary) to service economy (tertiary), followed by shift of labor absorption from agricultural sector to service sector, especially the tourism services. Economic growth of Badung Regency is faster than the economic growth rate of Bali Province. Sectors that have high competitiveness and the most dominant contribution to Gross Regional Domestic Product (GRDP) of Badung is the sector of accommodation and eating-drinking. The growth of labor absorption in Badung regency is faster than the growth of labor absorption in Bali Province. Sectors that have high competitiveness and the most dominant contribution in employment are trade, restaurants and hotels.

Keywords: Economic, Transformation, Badung, Tourism.

1. INTRODUCTION

Indonesia is a developing country with abundant natural resources and human resources, which can be the basic capital of economic development to achieve the prosperity of society. Economic development is

usually associated with the development and growth of the economy in developing countries. Sukirno (2002) defines economic development is growth plus change that is economic development is economic growth followed by changes in structure and pattern of economic activity. Meanwhile, Hill (2017) states that the economic development is usually the focus of federal, state, and local governments to improve our standard of living through the creation of jobs, the support of innovation and new ideas, the creation of higher wealth, and the creation of an overall better quality of life.

Economic development has four key dimensions namely growth, poverty alleviation, economic change or transformation, and sustainability of development from agrarian society to industrial society (Todaro, 1999). Good development can be known through regional economic growth that is by the demand of goods and services from outside the region, so that local resources are able to provide an increase to the wealth of the region and can create job opportunities in the region (Erawati, 2012).

At the national level, national economic growth is indicated by changes in Gross Domestic Product (GDP), while at the regional level can be seen from the changes that occur in Gross Regional Domestic Product (GRDP). GRDP is gross added value arising from all sectors of the economy in a region. CBS Bali (2015) noted that the economic growth of Bali Province viewed from the side of production in the form of added value in GRDP continues to increase. This is due to the contribution of each regency/city in the province of Bali, with the largest contribution is Badung regency, which accounts for 22.56 percent of the total GRDP of Bali Province.

Badung regency is one of nine regencies/city in Bali Province, divided into three development areas, namely North Badung (Abiansemal District and Petang District), Sentral Badung (Mengwi District), and South Badung (North Kuta Utara District, Sentral Kuta District, and South Kuta District). Badungkab (2017) informed that each region has different potential, that is North Badung is dominated by plantation activities, food crops, nature tourism, livestock, household handicraft, and nature conservation. Central Badung is dominated by agricultural activities, animal husbandry, cultural tourism, small industries and household handicrafts. South Badung is dominated by services related with tourism, education, fisheries, small industry, and trade.

Badung regency as one of the biggest contributors to GRDP of Bali Povinsi, due to Badung Regency as a center of various activities of tourism goods and services in Bali, and as the entrance of foreign and domestic tourists through Ngurah Rai International Airport in South Badung. It is able to contribute greatly to the sector of accommodation and feeding-provision to GRDP of Badung Regency, based on CBS Bali (2016) record in 2015 of 28.55 percent, which tends to increase in the coming years. Compared with the contribution of the agricultural sector which is still mostly done by the people of North Badung and Central Badung region is only able to contribute 6.70 percent in 2015 and tend to decrease in the coming years.

The rapid development in Badung regency, especially South Badung region dominated by tourism, made the economy also developed rapidly compared with non-tourism areas such as North Badung and Central Badung which in fact is dominated by agriculture, which most of the people livelihood as farmers. The occurrence of inequality of inter-regional development in Badung Regency has an impact on income distribution, although the value of GRDP of Badung Regency is high, has not been able to describe the level of even distribution of income received by residents in a region. According to Herath (2011), GRDP is only aggregate (average), so it has not yet been able to describe people's welfare and income distribution

among community groups. CBS Badung (2015) noted that gini ratio or income distribution of Badung Regency during the period 2011-2014 with an average of 0.338, that number indicates that the distribution of income in Badung regency with moderate or moderate inequality level, or in bad condition but not yet considered either because of low inequality criteria with values smaller than 0.3.

The current Badung regency economy, dominated by tourism-related services, previously around the 1980s is dominated by agricultural activities in a wide sense, and as the development of tourism, it is estimated that there has been a transformation of the economy in Badung regency. Todaro (1999) argues that the dominant development of a sector is capable of causing changes, such as changes in which sectors increase or decrease, and this knowledge is important in the development of a region. Based on this phenomenon needs to be done research on economic transformation in Badung regency.

Based on the previous description, the purpose of the research is to analyze the economic transformation, in the form of economic structure and the absorption of labor in Badung regency economy using shift share analysis method, and formulate policy recommendation based on research result.

2. LITERATURE REVIEW

Methods of Shift Share analysis can be used to analyze and know the shift of a region's economic structure by comparing the growth of sectors in areas with the same sector at a higher regional or national level. Shift Share analysis can be used to analyze changes in various indicators of economic activity, such as production and employment. From the results of Shift Share analysis will be known how the development of a sector in a region when compared relative to other sectors, whether growing fast or slow. In the analysis it is assumed that there is a change in the absorption of labor or production by the economic sectors in an area, the base year and the end of the year of analysis, divided by three components of growth, namely the components of national growth, proportional growth component, and the component of regional share growth. Budiharsono, 2005 (in Nurlatifah, 2009) states that the component of national growth is the change of employment or production of a region caused by changes in employment or national production in general, changes in national economic policy, or changes in matters affecting the economy of all sectors and region. The proportional growth component grows due to sector differences in final product demand, differences in raw material availability, differences in industrial policy, and differences in market structure and diversity. The growth component of regional share arises because of the increase or decrease of GRDP or occupancy in a region compared to other regions. According to Tambunan, 2003 (in Nurlatifah, 2009), Shift Share analysis is considered an excellent technique for analyzing changes in regional economic structures compared to the national economy. With this approach can be analyzed economic performance of a region by comparing it with a larger (national).

Shift share analysis is used to determine the performance or productivity of a region, structural shifts, relative positions of economic sectors and the identification of potential economic sectors of a region. Shift share is divided into three fields (Arsyad, 2005; Pendit, 2012; Hoover, 1975; Bendavid-Val, 1991; Azis, 1994; Isard et. al., 1998; Stimson et. al., 2006; Armstrong and Taylor, 2007; Tambunan, 2001 in Hastutiningsih, 2010), ie.

1. *National growth* (national growth effect) is used to determine the growth or shift of the economic structure of an area that is influenced by the shift of regional economic growth is higher (province).

2. *Proportional shift* or industrial mix influence, this component indicates whether economic activity in the sector or industry in the region is growing faster or slower than the growth of economic activity at the provincial level.
3. *Differential shifts* are used to assist in determining the extent of competitiveness of the sector or regional industry with the provincial economy, if a positive sector shift in the sector has a higher competitiveness than the same sector in the provincial economy.

According to Hoover (1975), Bendavid-Val (1991), Isard et. al., (1998), Stimson et. al., (2006), Amstrong and Taylor (2007), Hood (1998), and Suyatno (2000), Shift Share analysis can also be used to determine the causes of sector change, since the LQ and DLQ methods only show the sectoral position and reposition in regional economic growth without discuss the cause of the change. Understanding to know the factors causing sectoral repositioning is very important because it is the key basis to know the ability of the region to maintain the base sector in competition with the following steps:

1. Determining the Total of Regional Profit Index (TRPI) as the difference from the growth rate of regional GRDP with the GRDP growth of the set of regions representing the average growth rate of GRDP from all regions, can be formulated ie TRPI = (*gn*-G).
2. From the advantage of the total area at point one, then can be calculated the advantage obtained by the region, if compared to the region has the same rate with the set area, that is by multiplying TRPI with GRDP area called Total Shift Share consists of two components namely Structural Shift Share and Locational Shift Share, can be formulated ie TSS = (gn-G) Xino. The TSS equation can be decomposed gin and Gi and added for the sector to be TSS = Σ (gn-gin) Xino + Σ (Gi-G) Xino + Σ (gin-Gi) Xino.

According to Suyatno (2000), Structural Shift Share (SSS) is the difference in growth rate of regional GRDP with the area of set that occurs due to the difference of sectoral share despite the same rate of sectoral growth. Whereas Locational Shift Share (LSS) is the difference of GDP growth rate of a region with the area of the set that occurs due to different sectoral growth rates despite the sectoral share of the region exactly the same part. The value 0 states that the sectoral share of the region is exactly the same as the set region, with the sectoral growth rate exactly alike. Positive or negative values indicate the advantages or disadvantages borne by the upper region of the advantages or disadvantages of the structure or location of the area against other regions within the set area.

3. RESEARCH METHOD

A. Research Location

This research was conducted in Badung Regency of Bali Province with implementation time in April 2017 until May 2017. Site selection was done intentionally with some considerations as follows: (1) Badung Regency contribute greatly to the growth of GRDP of Bali Province; (2) Badung Regency is the center of tourism development in Bali Province and there are many cases of land conversion; and (3) The existence of inequality of inter-regional development that impact on the inequality of distribution of regional income.

B. Type of Data

The type of data used in this study is quantitative data and qualitative data. Quantitative data is data in the form of numbers and can be calculated with a certain unit (Sugiyono, 2003). The quantitative data collected in this research is GRDP data of Bali Province and Badung Regency in the time series data during last five years ie 2011-2015, the population of Bali Province and Badung regency aged 15 years and over working according to sector, and the growth rate of GRDP of Bali Province and Badung Regency in the last five years ie 2011-2015. Qualitative data is data that is not in the form of numbers, but is a description as well as explanation that can not be calculated. The qualitative data required in this research is the history and general description of the research area.

C. Method of Data Collection

Data collection method used is Document Study which is data collection method by researching various documents which will be used as analysis material, in this research is used the document of Gross Regional Domestic Product (GRDP) of Bali Province and Badung Regency.

D. Source of Data

Data source in this research is secondary source, that is from Statistic Central Bureau of Bali Province and Badung Regency covering data of GRDP of Bali Province and Badung Regency.

E. Method of Data Analysis

The method of data analysis using Shift Share Analysis is an analysis that aims to determine the performance of regional economic productivity by comparing with a wider region (regency or province). This analytical technique divides growth as a change (D) of a regional variable, such as labor, added value, income or output, over a period of time will be influences: *national/ regional growth* (N). *Industry mis/ mix industry* (M), and *competitive advantage* (C) (Arsyad, 2005, Wiwekananda, 2016, Hoover, 1975, Herzog and Olsen, 1977, Isard, 1998; Stimson et. al., 2006; Amstrong and Taylor, 2007), with the general form of the equation as follows.

$$D_{ij} = N_{ij} + M_{ij} + C_{ij} \quad (1)$$

In this research the variables that will be used are GRDP and Labor denoted as (*y*),

$$N_{ij} = y_{ij} \cdot r\, n \quad (2)$$

$$M_{ij} = y_{ij}\,(r_{in} - r_n) \quad (3)$$

$$C_{ij} = y_{ij}(r_{ij} - r_{in}) \quad (4)$$

$$r_{ij} = (y^*_{ij} - y_{ij})/y_{ij} \quad (5)$$

$$r_{in} = (y^*_{in} - y_{in})/y_{in} \quad (6)$$

$$r_n = (y^*_n - y_n)/y_n \quad (7)$$

Information:

D_{ij} : change of sector *i* in region *j* (Badung regency)

N_{ij} : national growth sector *i* in region *j* (Badung regency)

M_{ij} : industry mix of sector *i* in region *j* (Badung regency)

C_{ij} : competitive advantage of sector *i* in region *j* (Badung regency)

y_{ij} : GRDP/Manpower sector *i* in area *j* (Badung regency) beginning of year Analysis

y^*_{ij} : GRDP/Manpower sector *i* in area *j* (Badung regency) end of year of analysis

r_{ij} : The growth rate of sector *i* in region *j* (Badung regency)

r_{in} : The growth rate of sector *i* in region *n* (Bali Province)

r_n : Growth rate of GRDP/Manpower in region *n* (Bali Province)

y_{in} : GRDP/workforce sector *i* in region *n* (Bali Province) beginning of the analysis year

y^*_{in} : GRDP/workforce sector *i* in region *n* (Province of Bali) year-end analysis

y_n : Total GRDP/Workforce of all sectors in region *n* (Province of Bali) beginning of the year of analysis

y^*_n : Total GRDP/Workforce of all sectors in region *n* (Province of Bali) year-end analysis

I : economic sectors under study

j : variable of the area under study of Badung Regency

n : variable of area studied in Bali Province

For a region, national or regional growth, industry mix and competitive advantage can be summed for all sectors as the whole region, so that the shift share equation for sector *i* in region *j* (Badung regency) is constructed from equation (2), (3), and (4) as follows:

$$D_{ij} = y_{ij} \cdot r_n + y_{ij}(r_{in} - r_n) + y_{ij}(r_{ij} - r_{in})$$

4. RESULT AND DISCUSSION

A. Transformation of Economic Structure

Shift share analysis is a very useful technique in analyzing changes in regional economic structure compared with the national economy. Shift share analysis can determine the performance or productivity of the regional economy by comparing it with larger areas. To get the factors causing sectoral change in Badung Regency with Bali Province, there are various calculation phase or there are three components in shift share that are *regional growth* (N), *industry mix or proportional shift* (M), competitive advantage or *differential shift* (C). The results of the analysis are presented in Table 1.

Results of analysis shift share of economy of Badung regency during the last five years (2011-2015) (Table 1), obtained the value of change amounting to 6,885,627 million IDR. This growth is influenced by three components, namely regional share (N_{ij}) of 6,506,780.9 million IDR, industry mix or proportional shift (M_{ij}) of 145,834.5 million IDR and competitive advantage or differential shift (C_{ij}) of 203,011.7 million IDR. Of the three components that affect the growth of GDP of Badung Regency that is regional share, proportional shift, and differential shift give positive contribution, with the biggest value contributed by regional share component. This means that the GDP growth of Badung Regency is strongly influenced by the growth of GRDP that occurred in Bali Province.

Table 1
Transformation Components of Economic Structure of Badung Regency, Bali, Indonesia

S. No.	*Sectors*	*Components*			*Change of Economic Structure*
		Share Regional, N_{ij} (Million IDR)	*Proportional Shift, M_{ij} (Million IDR)*	*Differential Shift, C_{ij} (Million IDR)*	*Total Change, D_{ij} (Million IDR)*
1	Agriculture, Forestry and Fisheries	535.287,3 (154,82%)	–252.171,5 (–72,94%)	62.631,7 (18,12%)	345.747,5 (100%)
2	Mining and excavation	24.652,7 (140,87%)	–11.933,7 (–68,19%)	4.781,6 (27,32%)	17.500,7 (100%)
3	Processing industry	298.633,2 (82,33%)	42.369 (11,67%)	21.719,9 (6%)	362.722,1 (100%)
4	Procurement of Electricity and Gas	13.469,2 (114,77%)	–2.482,2 (–21,15%)	749 (6,38%)	11.736 (100%)
5	Water Supply, Waste Management, Waste and Recycling	21.048,2 (128,66%)	–7.100,8 (–43,40%)	2.412,4 (14,74%)	16.359,8 (100%)
6	Construction	604.667,3 (81,38%)	125.225,4 (16,85%)	13.118,1 (1,77%)	743.010,8 (100%)
7	Large and Retail Trade, Repair of Cars and Motorcycles	480.776,7 (81,65%)	72.669,3 (12,34%)	35.388,1 (6.01%)	588.834,1 (100%)
8	Transportation and Warehousing	1.251.247,6 (156,31%)	–158.822,1 (–19,84%)	–291.924,9 (–36,47%)	800.500,6 (100%)
9	Provision of Accommodation and Drinking	1.648.984,3 (83,15%)	128.225,6 (6,47%)	205.895,4 (10,38%)	1.983.105,4 (100%)
10	Information and Communication	491.439,9 (83,16%)	94.196,3 (15,94%)	5.288,5 (0,9%)	590.924,7 (100%)
11	Financial Services and Insurance	175.386 (60,7%)	76.543,5 (26,49%)	37.011,4 (12,81%)	288.940,9 (100%)
12	Real Estate	258.847,5 (82,36%)	10.540,5 (3,36%)	44.891,8 (14,28%)	314.279,8 (100%)
13	Company Services	52.864 (96,57%)	–1.798,4 (–3,29%)	3.673,6 (6,72%)	54.739,2 (100%)
14	Government Administration, Defense and Social Security	288.248,3 (119,71%)	–79.606,5 (–33,06%)	32.150,1 (13,35%)	240.791,9 (100%)
15	Educational Services	223.319,4 (75,37%)	65.112,1 (21,97%)	7.878,4 (2,66%)	296.309,9 (100%)
16	Health Services and Social Activities	83.640,6 (57,40%)	48.847,2 (33,52%)	13.217,9 (9,08%)	145.705,7 (100%)
17	Other services	54.268,5 (99,72%)	–3.979,4 (–7,31%)	4.128,7 (7,59%)	54.417,9 (100%)
	Total	6.506.780,9 (94,9%)	145.834,5 (2.13%)	203.011,7 (2.97%)	6.855.627 (100%)

The result of shift share analysis also informed that during the last five years (2011-2015) the economy of Badung Regency represented by GRDP experienced growth of 6,885,627 million IDR. Of this amount, the largest contribution was provided by the accommodation and eating-drinking sector by 1,983,105.4 million IDR or about 28.80 percent of total growth. Other sectors that contribute quite high are the transportation and warehousing sector of 800,500.6 million IDR or about 11.63 percent of total growth, construction sector of 743,010.8 million IDR or 10.79 percent of total growth, information and communication sector 590,924.7 million IDR or 5.59 percent of the total growth, while the contribution of the agriculture, forestry and fishery sectors only amounted to 345,747.5 million IDR or 5.02 percent of the total growth (see Table 1).

The accommodation and eating-drinking sector contributed the most to GRDP growth in Badung Regency in 2011-2015. This seems to be in accordance with the results of the identification of the base sector in the economy of Badung Regency by Antara et. al., (2017) used the Location Quotient (LQ) analysis tool (see: Baer and Brown, 2006 for LQ Analysis) which showed that the sector of accommodation and eating-drinking as the base sector in Badung regency. Other sectors that contribute substantially to the GRDP growth of Badung Regency are also the base sector, covering the transportation and warehousing sectors, construction sector, and information and communication sectors.

A more detailed description of the growth component of GRDP of Badung Regency is as follows:

(a) Share Regional (N_{ij})

The economic growth of Bali Province has a positive impact on the economic growth of Badung Regency, which is shown by the regional share value (Nij) of 6,506,780.9 million IDR and is positive for all sectors. The regional value of share (Nij) is lower than the growth value of GRDP (Dij) which shows that the economic growth rate of Badung Regency during the last five years (2011-2015) is faster than the economic growth of Bali Province.

Based on the calculation in Table 1, there are 12 sectors of 17 sectors in the economy of Badung Regency grew better than those in the economy of Bali Province, covering sector of agriculture, forestry and fishery, sector of manufacturing industry sector, sector of construction, sector of large trading and retail, car and motorcycle repairs, the sector of accommodation and eating-drinking, the sector of information and communication, the sector of financial and insurance services, sector of real estate sector, the sector of enterprise services, the sector of education services, the sector of health services and social services, and other services sectors. While the remaining five sectors under Bali's GRDP growth include the sector of mining and quarrying, the sectors of electricity and gas procurement, sectors of water procurement, sector of waste treatment, waste and recycling, transportation and warehousing, and the sectors of government administration, defense and social security.

The value of regional share shows changes in sectoral output caused by general changes in Bali Province. These changes include changes in economic policy or changes in factors affecting the overall economy of the province of Bali. However, there are five sectors that are under the GRDP growth of Bali Province due to the impact of the changing economic policy on the five sectors, resulting in the decrease of added value and under the growth of GRDP of Bali Province.

(b) Proportional Shift (M_{ij})

In the second component is *proportional shift* that measures the relative change, growth or decline economic of Badung regency compared with the economy of Bali Province. This measurement makes it possible to know which sectors are growing faster than the economy of Bali Province. Based on the calculation of shift share, it is known that the proportional shift (Mij) value is poritive with a total of 145,834.5 million IDR which illustrates that the economic growth of Badung Regency is generally faster than the economic growth of Bali Province.

However, there are nine sectors that grow faster than the economic growth of Bali Province, covering the manufacturing sector, construction sector, large and retail trade sector, car and motorcycle repairs, accommodation and drinking-food sector, information and communications sector, financial and insurance services, real estate sector, education services sector, health services sector and social activities. While there are eight slower growth sectors compared to the same sector growth in Bali Province economy covering agriculture, forestry and fishery sectors, mining and quarrying sector, electricity and gas procurement, water procurement sector, waste treatment, waste and recycling sector transportation and warehousing, corporate services sector, government administration, defense and social security sectors, and other services sectors.

Sector, which means that the sector has a rapid economic growth compared the same sector growth in the economy of the Province of Bali, due to the fact that the Badung Regency as a tourism center of Bali Province, supported by various tourism destinations and provision of accommodation capable of facilitating tourists. This is in accordance with the identification result Antara et. al., (2017) that the accommodation and feeding-sector as the base sector in Badung Regency, indicated by the value of LQ > 1 is 1,327 (see: Baer and Brown, 2006 for LQ Analysis).

The sectors with the lowest industry mix value are agriculture, forestry and fishery sector of (–252,171.5) million IDR which means that this sector has a slow growth compared to the same sector growth in the economy of Bali Province, so Badung Regency lost revenue from the sector agriculture, forestry and fisheries amounting to 252,171.5 IDR.

This is because agriculture, forestry, and fishery sector based on the identification of base sector by Antara et. al., (2017) using Location Quotient (LQ) analysis (see: Baer and Brown, 2006), indicates that this sector belongs to non-base sector with value LG < 1 is 0.510, so this sector is only able to meet the needs of the local market and when compared with the growth of the same sector at the Bali Province level. In addition, the reduction of productive land has an impact on the decrease of productivity of production and is unable to meet the market demand outside the region.

(c) Differential Shift (C_{ij})

Differential shift or competitive advantage is useful to determine how far the competitiveness of a sector in Badung regency compared with the same sector in Bali Province. If the differential shift (C_{ij}) of a sector is positive, then the sector has a higher competitiveness than the same sector in the economy of Bali Province. Based on the calculation of Table 1 it is known that the value of differential shift (C_{ij}) total of 203.011.7 million IDR which means the overall competitiveness of the sector of Badung Regency is higher than the competitiveness of the sector of Bali Province.

There are 16 sectors from 17 sectors with positive values including agriculture, forestry and fisheries sector, mining and quarrying sector, manufacturing industry sector, electricity and gas procurement sector, water supply sector, waste treatment, waste and recycling, construction sector, trade sector large and retail, car and motorcycle repair, accommodation and drinking-food sector, information and communications sector, financial services and assumptions sector, real estate sector, enterprise services sector, administration administration, defense and social security sector, education services sector, health services and social activities, and other sectors. The whole sector has high competitiveness compared to the same sector in Bali Province. Means that all positively valued sectors have higher growth rates than the same sector in Bali Province.

The most competitive sector is the accommodation and feeding-drinking sector of 205,895.4 million IDR. This is supported by the condition of Badung Regency as a tourism destination that is able to contribute a higher growth rate compared to Bali Province level. However, from each sector, there are sectors with negative value, namely transportation and warehousing sector (–921.924.9) million IDR, meaning that this sector has low competitiveness or low growth rate compared to the same sector in Bali Province.

The economic transformation of Badung Regency based on Shift Share analysis gives an illustration that during the last five years (2011-2015) occure transformation of economic structure from agricultural sector (agrarian) to service sector, indicated by total contribution of added value of each sector to GRDP of Badung Regency. The total contribution of the biggest added value to the economy of Badung Regency is the service sector, especially the tourism services, then followed by the industrial sector, and the total value of the smallest change is the agricultural sector (Table 2). This is in accordance with the research results Antara et. al., (2017) that the sectors covered by the service sector are generally the sector basis, which if developed not only able to meet the needs of local communities, but also can be exported to other regions or countries.

Table 2
Transformation of Economic Structure of Badung Regency, Bali, Indonesia

S.No.	*Sectors*	*Total of Change, D_{ij} (Million IDR)*
1	Agriculture in the wide sense (primary)	345.747,5
2	Industry (secondary): Mining and Quarrying + Processing Industry + Electricity and Gas Procurement + Water Supply, Waste Management, Waste and Recycling + Construction)	1.151.329,4
3	Services (tertiary): Large and Retail Trade, Car and Motorcycle Repair + Transportation and Warehousing + Accommodation and Eating-Drinking + Information and Communication + Financial and Insurance Services + Real Estate + Corporate Services + Government Administration, Defense and Social Security + Education Services + Health Services and Social Activities + Other Services)	5.358.550,1

B. Transformation of Labor Structure

Shift Share analyzes changes in various indicators of economic activity, such as production and employment. In this analysis it is assumed that the change of labor in an area of the base year by the end of the year of analysis, divided into three components in the *shift share of national growth* (N), industry mix or *proportional shift* (M), competitive advantage or *differential shift* (C).

Based on the results of shift share analysis, labor in Badung Regency growth of 32,919 person. This growth is influenced by three components, namely *regional share* (N_{ij}) of 16,639 person, industrial mix or *proportional shift* (Mij) of 6,763 person, and *competitive advantage* (Cij) equal to 9,518 person (Table 3).

The largest contributors to the growth of labor in Badung Regency are the trade, restaurant and hotel sectors of 43,929 person. The results are in line with the results of shift share analysis on the transformation of economic structure of Badung regency which shows that the increase of GRDP of Badung Regency in 2011-2015 is the largest contributed by the sector of accommodation and drinking, thus affecting the absorption of higher labor in the sector.

Sectors with the smallest contribution were contributed by the agriculture, plantation, forestry and fishery sectors of –10,520 person. Due to the rapid development of tourism in Badung Regency, it is able to attract a larger workforce from the agricultural sector which makes many people shift professions from farmers to sellers of services. A more detailed description of the components affecting the growth of labor is as follows.

(a) Regional Share (N_{ij})

Labor growth in Bali Province has a positive impact on labor growth in Badung Regency or sectoral labor growth in Badung Regency in line with growth in Bali Province. In Table 3 it appears that the value of regional share (N_{ij}) of 16,639 people with the overall sector is positive. The value of regional share (N_{ij}) is lower than the labor growth rate (D_{ij}) which indicates that the labor growth rate of Badung Regency in 2011-2015 is faster than the growth of labor force in general in Bali Province.

There are four sectors with faster employment growth compared to the same sector employment growth in Bali Province, namely construction, trade, restaurants and hotels sector, transportation, warehousing and communications sector, as well as financial, insurance, business rentals, and buildings. This is due to changes in economic policies in the same sector at the Bali Province level, so that the workforce prefers the sector and growth faster.

Table 3
Transformation Components of Labor Structure in Badung Regency

S.No.	*Sectors*	*Components*			*Change of Labor Structure*
		Regional Share, N_{ij} (Person)	*Proportional Shift, M_{ij} (Person)*	*Differential Shift, C_{ij} (Person)*	*Total of Change, D_{ij} (Person)*
1.	Agriculture, Forestry and Fisheries	2.322 (–22,07%)	–5.070 (48,19%)	–7.772 (73,88%)	–10.520 (100%)
2.	Mining and excavation	57 (–6.14%)	–392 (42,24%)	–593 (63,90%)	–928 (100%)
3.	Processing industry	2.443 (–23.82%)	–2.846 (27,75%)	–9.854 (96,08%)	–10.256 (100%)
4.	Electricity and Gas	43 (–34,4%)	–75 (60%)	–92 (73,6%)	–125 (100%)

(*Contd...*)

S.No.	Sectors	Components			Change of Labor Structure
		Regional Share, N_{ij} (Person)	Proportional Shift, M_{ij} (Person)	Differential Shift, C_{ij} (Person)	Total of Change, D_{ij} (Person)
5.	Construction	1.511 (59,65%)	133 (5,25%)	889 (25,10%)	2.533 (100%)
6.	Trade, Restaurants, and Hotels	5.333 (12,14%)	22.863 (52,05%)	15.733 (35,81%)	43.929 (100%)
7.	Transportation, Warehousing, and Communication	637 (7,02%)	–1.534 (–16,90%)	9.974 (109,89%)	9.076 (100%)
8.	Finance, Insurance, Rental and Building	829 (10,77%)	867 (11,27%)	5.999 (77,96%)	7.695 (100%)
9.	Social Services, Social, and Individual	3.465 (–40,84%)	–7.183 (84,66%)	–4.767 (56,18%)	–8.485 (100%)
	Total	16.639 (50,55%)	6.763 (20,55%)	9.518 (28,92%)	32.919 (100%)

Sectors with employment growth under the sectoral labor force growth of agriculture, plantation, forestry and fishery sector, mining and quarrying sector, processing industry sector, electricity and water sector, and social services, and private sector. Due to the change of economic policy in the same sector at Bali Province level, but the condition of the sector in Badung Regency is not better than the same sector in Bali Province.

(b) Proportional Shift (M_{ij})

Proportional shift measures the relative change, growth or decrease of labor absorption of Badung Regency compared with labor of Bali Province. This measurement makes it possible to know which sectors grow faster than the Bali Province. Viewed from the value of *proportional shift* (Mij) it is known that the total value of 6,763 people which means the absorption of overall sectoral labor has a faster labor growth compared to Bali.

There are several sectors with slower employment growth compared to Bali Province such as agriculture, plantation, forestry and fishery sector, mining and quarrying sector, manufacturing industry sector, electricity and water sector, transportation sector, warehousing and communication, and service sector societal, social, and individual. The slow growth of labor absorption is due to the decreasing of economic activity in the sector, resulting in declining productivity and labor demand. Sectoral workers with the lowest value of mix are social services, social, and individual sectors of -7.183 people. This means that the sector has a slower rate of employment growth at the Bali Provincial level resulting in the loss of workforce of 7,183 people from the social services, social, and individual sectors.

Sectoral employment with faster employment growth is the construction sector, trade, restaurants and hotels sector, the financial, insurance, leasing sector, and building sector. This indicates that the increase of economic activity that impact on the increase of labor requirement, so that the absorption of labor is also faster than the same sector in Bali Province level. The highest mix value is the trade, restaurant and hotel sectors of 22,863 people, meaning that the sector is able to absorb labor faster than the same sector at the Bali Province level.

(c) Differential Shift (C_{ij})

Competitive advantage or *differential shift* (C_{ij}) is used to determine the extent of competitiveness of sectoral employment compared to provincial level. The total value of the shift (C_{ij}) of 9,518 person, which means the absorption of total sectoral employment has a higher competitiveness than the same sector worker at the Bali Province level.

There are five sectors with negative value which means lower competitiveness covering agriculture, plantation, forestry, and fishery sector, mining and quarrying sector, processing industry sector, electricity and water sector, as well as social service, social and private sector. This indicates that the five sectors do not have a comparative or non-base advantage that is consistent with the result of the identification of the base sector by Antara et. al., (2017) that the five sectors are included in the non-base sector. If the sector belongs to a non-base sector, the sector does not have a comparative advantage, so the five sectors can not compete or have low competitiveness.

Sector with positive work competitiveness value includes building sector, trade, restaurant and hotel sector, transportation warehousing and communications sector, and financial, insurance, and leasing sector and building sector. These four sectors are able to compete with the same sector at the Bali Provincial level supported by the comparative advantages of each sector. The highest competitiveness value was contributed by the trade, restaurant and hotel sector of 15,733 person in accordance with the condition of Badung Regency with the rapidly growing tourist attraction.

The sectoral labor structure in Badung Regency during the last five years (2011-2015) shows that the sector of labor absorber dominance is service sector of 52,215 person, followed by industry sector decreasing as much as –8.776 person, and decreasing the absorption of the most labor force is agriculture sector as much as –10,520 person. In other words services sector with positive change value, followed by changes of industry sector negative, and agricultural sector with the biggest negative change value (Table 4). This causes the services sector to absorb more labor than the sector of agriculture and agriculture, it can be said that there has been a transformation of labor structures from the agricultural sector to the services sector, especially services related directly and indirectly with tourism, because the sector is capable contribute greatly to the absorption of manpower in Badung Regency.

Table 4
Transformation of Labor Structure in Badung Regency, Bali, Indonesia

S.No.	*Sectors*	*Total of Changes, D_{ij} (Person)*
1.	Agriculture in the wide sense (primary)	–10.520
2.	Industry (secondary): Mining and Quarrying + Processing Industry + Electricity and Gas Procurement + Water Supply, Waste Management, Waste and Recycling + Construction)	–8.776
3.	Services (tertiary): Large and Retail Trade, Car and Motorcycle Repair + Transportation and Warehousing + Accommodation and Eating-Drinking + Information and Communication + Financial and Insurance Services + Real Estate + Corporate Services + Government Administration, Defense and Social Security + Education Services + Health Services and Social Activities + Other Services)	52.215

5. CONCLUSION AND POLICY RECOMMENDATION

A. Conclusion

The economy of Badung Regency during the last five years (2011-2015) undergoes transformation of economic structure from agricultural economy (primary) to service economy (tertiary), followed by shift of labor absorption from agricultural sector to service sector, especially tourism services.

Economic growth of Badung Regency during the last five years (2011-2015) faster than the economic growth rate of Bali Province. Sectors that have high competitiveness and the most dominant contribution to GRDP of Badung is the sector of accommodation and eating-drinking.

The growth of labor absorption in Badung regency during the last five years (2011-2015) is faster than the growth of labor absorption in Bali Province. Sectors that have high competitiveness and the most dominant contribution in employment are trade, restaurants and hotels.

B. Policy Recommendation

In the regional development planning, the government of Badung Regency is expected to prioritize the development of services sector, since the sectors covered by the service sector are all sector basis, and if the potential of these sectors is dug up will be able to produce goods and services to meet the needs for local people and for export.

Agricultural sector which is included in non-base sector in Badung Regency, which many abandoned by its workforce also needs to be considered in development planning, because the agricultural sector in Badung Regency, besides as a source of livelihood for the population of North and Central Badung region, as well as food supply of Badung South.

Based on Shift Share analysis, Badung Regency's economy depends on economy of Bali Province (eight regencies/city), therefore Badung Regency government should keep harmonious relationship with other regency supporting Badung Regency by allocating tourism income in the form of hotel and restaurants tax to other regencies.

References

Amstrong, H. and Taylor, J. (2007). Regional Economics and Policy. Third Edition. Australia: Balackwell Publishing.

Antara, Made, I.G.A. Oka Suryawardhani, and N.M. Lodi Dwi Utami. (2017). Basis Sector in the Economic Structure of Badung Regency, Bali, Indonesia. In Research Applied Economics. Vol. 9 No. 3 (2017). Published by Macrothink Institute, Canada. ISSN. 1948-5433. pp. 108-124.

Arsyad, Lincolin. (2005). Introduction to Regional Economic Development Planning. Second Edition. Agency Publisher of Faculty of Economics, University of Gadjah Mada, Yogyakarta.

Azis, Iwan J. (1994). Regional Economics and its Application in Indonesia. Editor: Marsudi Djojodipuro. Agency Publisher of Economics Faculty, University of Indonesia, Jakarta.

Badungkab. (2017). Featured Sector. Available: http://www.badungkab.go.id/menu/5/ sectorus (Accessed on February 6, 2017).

Baer, C. and Brown, T. (2006). Location Quotients: A Tool for Comparing Regional Industry Compositions. In Context. A publication of the Indiana Business Research Center at IU's Kelley School of Business. March 2006, Vol. 7, No. 3. pp. 1-3.

Bendavid-Val, Avrom. (1991). Regional and Local Economic Analysis for Practitioners. Fourt Edition. London: Praeger Publisher.

CBS Bali. (2015). Bali In Figures 2016. Published by Bali Central Bureau of Statistics.

CBS Bali. (2016). Bali In Numeric 2016. Published by Bali Central Bureau of Statistics.

CBS Badung. (2015). Badung Regency In Numeric 2015. Published by Central Agency Statisti Badung regency.

Herath, J., Gebremedhindan, T.G. and Maumbe, B.M. (2011). A Dynamic Shift Share Analysiis of Economic Growth in West Virginia. *Journal of Rural and Community Development*, 6(2), pp. 134-145.

Herzog, H.W and. R. Olsen. (1977). *Shift-Share Analysis Revisited: The Allocation Effect and The Stability of Regional Structure.* Tenesse: OAK Ridge National Laboratory.

Hill, Aaron. (2017). What is Economic Development? - Definition & Examples. In http://study.com/academy/lesson/what-is-economic-development-definition-examples. html# partialRegFormModal.

Hoover, E.M. (1975). An introduction to Regional Economics. Second Edition. New York: Alfred A. Knopt Publisher.

Isard, W. Azis, I.J., Drennan, M.O., Miller, R.E., Saltsman, S. and Thorbecke, E. (1998). Methods of Interregional and Regional Analysis. Published by Ashagate Publishing Limited, England.

Nurlatifah. (2009). Economic Shift of Ciamis Regency Post-Expansion Banjar City. Faculty of Economics and Management, Bogor Agricultural University, Bogor.

Pendit, P. (2012). Determination of Potential Economic Sectors in Order to Support Economic Development Planning in Bangli District. [Thesis]. Master Program of Economics Program of Graduate Program of Udayana University. Denpasar, Bali, Indonesia.

Stimson, R.J., Stough, R.R. and Roberts, B.H. (2006). Regional Economic Development, Analysis and Planning Strategy. Second Edition. Berlin Heidelberg: Springer-Verlag Publishing.

Sugiyono. (2013). Business Research Methods (Quantitative Approach, Qualitative, and R & D). Bandung: Alfabeta Publisher.

Sukirno, S. (2002). Introduction to Macroeconomics Theory. Jakarta: PT Raja Grafindo Persada.

Suyatno. (2000). Economic Basis Analysis on Economic Growth in Wonogiri Second Level Region: Facing the Implementation of Law no. 22/1999 and Law no. 5/1999. Journal of Development Economics Vol. I No.2, December 2000: 144-159. Faculty of Economics, University of Muhammadiyah Surakarta. Surakarta.

Todaro, M.P. (1999). Economic Development 'in the Third World, Sixth Edition. Jakarta: Erlangga Publisher.

Wiwekananda, I.BP. (2016). Transformation of Economic Structure and Superior Sector in Buleleng Regency Period 2003-2008. Department of Economic Development Faculty of Economics and Business Udayana University, Bali.