Abstract—This study aims to determine the district’s economic structure of Bangli seen from the contribution to GDP and to determine the economic sectors that serve as a potential economic sectors in Bangli. This study uses secondary data from the data of Gross Regional Domestic Product (GDP), agricultural production data, data of population and distance between the districts. Data collection methods used are the methods of documentation. Data analysis with the Shift Share analysis and Location Quotient Analysis. The results of this study concluded that the rate of economic growth in the period 2013-2017 Bangli District slower than general economic growth in the province of Bali. The competitiveness of the sector in aggregate is lower than province. Contribution of the agricultural sector is dominant so the structure of the economy Bangli District is the traditional economy. Potential economic sectors that used as leading sector are agriculture and services sectors and sub sector of entertainment services and recreation. The Government should prioritize the Bangli district sector and commodities that have been identified leading, however other sectors and commodities sector continued to receive attention in proportion to the potential and development opportunities. Some leading commodity sectors and regions are not only maintained but should continue to be developed according to its potential to encourage the growth of GDP Bangli District for future development.

Keywords—GDP, Leading sector, Leading commodities.

I. INTRODUCTION

The key to the success of the decentralization system through autonomy is the regional development policy that emphasizes the specific characteristics of the region concerned (endogenous development) by using the potential of human resources, institutions, and physical resources locally (Sidin, 2001). This orientation leads to the growth of initiative and creativity from the regions in the development process to create new employment opportunities and stimulate increased productive activities. Finding superior potential from an area is very important given the variety of economic activities, both in the activities of the primary sector, the secondary sector and the tertiary sector. One indicator used to measure the success of regional economic development is through an analysis of the structure and development of the Gross Regional Domestic Product (GDP).

In Table 1 it can be seen that Bangli Regency’s GDP has been developing or increasing over a period of five years. The GDP value of Rp 3,097.1 billion in 2012 increased to Rp 3,918 billion in 2016. Although there has been an increase, the GDP owned by Bangli Regency remains the lowest compared to other districts/cities in Bali Province. To solve this problem, it is necessary to study so that the position of Bangli Regency is not always at the lowest level. One study that will be carried out is to determine potential or potential sectors. Through the development of this potential sector, it is expected to be able to attract other sectors so that it can accelerate the development process which is marked by an increase in the GDP of Bangli Regency.

TABLE 1. REGENCY/CITY GDP IN BALI PROVINCE ON THE BASIS OF THE 2010 CONSTANT PRICE, 2012-2016 PERIOD (BILLION RUPIAH)

<table>
<thead>
<tr>
<th>Regency/City</th>
<th>2012</th>
<th>2015</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Badung</td>
<td>24,027.70</td>
<td>29,178.30</td>
<td>31,161.00</td>
</tr>
<tr>
<td>Denpasar</td>
<td>23,397.20</td>
<td>28,433.30</td>
<td>30,291.00</td>
</tr>
<tr>
<td>Buleleng</td>
<td>15,480.20</td>
<td>18,824.80</td>
<td>19,960.00</td>
</tr>
<tr>
<td>Gianyar</td>
<td>12,508.70</td>
<td>15,173.30</td>
<td>16,130.00</td>
</tr>
<tr>
<td>Tabanan</td>
<td>10,500.50</td>
<td>12,651.40</td>
<td>13,426.00</td>
</tr>
<tr>
<td>Karangasem</td>
<td>7,538.00</td>
<td>8,992.30</td>
<td>9,525.00</td>
</tr>
<tr>
<td>Jembrana</td>
<td>6,973.00</td>
<td>10,273.40</td>
<td>8,031.00</td>
</tr>
<tr>
<td>Klungkung</td>
<td>4,036.40</td>
<td>4,813.00</td>
<td>5,115.00</td>
</tr>
<tr>
<td>Bangli</td>
<td>3,097.10</td>
<td>3,688.00</td>
<td>3,915.00</td>
</tr>
<tr>
<td>Bali</td>
<td>106,951.50</td>
<td>129,137.90</td>
<td>137,193.00</td>
</tr>
</tbody>
</table>

Unlike Badung Regency which has the highest GDP and has the largest share of GDP in Bali Province, the percentage of GDP share in Bangli Regency to the GDP of Bali Province is the smallest, which is less than 4 percent. This complements the statement from Table 1 that Bangli Regency is the district with the smallest GDP. By sector, GDP of Bangli Regency
was formed by 3 dominant sectors, namely the first sector of agriculture, forestry and fisheries by 27.23 percent, then the sector of Supply of Food and Drinking by 13.12 percent, and the third sector was Government Administration, Defense and Social Security Must be 10.67 percent.

In connection with this, it is very important to conduct scientific studies to identify potential sectors, and to support development planning in Bangli Regency. Based on the description, the main issues in this study are as follows: 1. How is the economic structure of Bangli Regency seen from the contribution to GDP? 2. Which economic sector is used as a potential economic sector in Bangli Regency?

II. LITERATURE REVIEW

A. Economic Growth Theory

Economic growth is one of the important indicators to analyze the development of a country or region. Efforts to increase growth are a central theme in the economic life of all countries in the world today (Todaro, 2000). The growth of a good economy is an economy that is able to provide welfare for all residents in the country or region concerned. The economic growth process is closely linked to high structural and sectoral changes. Some changes to this structural main component include a gradual shift in agricultural activity towards the non-agricultural sector and from the industrial sector to services. An area that is developing, the process of economic growth will be reflected in the shift in the traditional economic sector, namely the agricultural sector will experience a decline on the one hand and an increase in the role of the non-agricultural sector on the other. Boediono (1981) defines economic growth as a long-term increase in the ability of a country to provide more and more types of economic goods to its population; this ability grows in accordance with technological progress, and the institutional and ideological adjustments that are needed. An economy is said to experience growth or develop if the level of economic activity is higher than what was achieved in the past. This means that new developments are created when the amount of goods and services produced in the economy becomes larger in the following years. To improve regional economic growth, the main policy that needs to be done is to look at what sectors/commodities have great potential and can be developed quickly, both because of natural potential and because this sector has a competitive advantage to develop. That is, with the same capital requirements the sector can provide large added value, can produce in a relatively short time and the volume of donations to the economy is also quite large. So what must be done is to strive for the maximum potential that is owned by the province (region) concerned. Because each region has different potential, it is better for the region to determine the economic potential that can be developed first.

B. Regional Economic Development

Regional economic development is a process in which local governments and communities manage various existing resources and form a partnership pattern between local governments and the private sector to create new jobs and stimulate the development of economic activities or economic growth in the region (Arsyad, 1999). The main objective of regional economic development is to increase the number and type of employment opportunities for regional communities, in this case the local government and the community must jointly take the initiative by using the potential of various existing resources. The main problem in regional development lies in the emphasis on development policies based on regional peculiarities (endogenous development), which are related to the potential of human resources, institutions and local physical resources. Sjafrizal (1997), to achieve regional development goals, the main policy that needs to be done is to make every effort possible so that regional development priorities are in accordance with the potential of the region concerned. This needs to be worked out because the development potential faced by each region is certainly very varied. If the priority of regional development is not in accordance with the potential possessed by each region, then there are less resources that can be utilized optimally. This situation resulted in the relatively slow process of economic growth in the region concerned, which in turn resulted in increased imbalance in regional development as a whole.

C. Leading Sector

The concept and understanding of the leading sector (base sector) can be seen from two sides, namely the supply side and the demand side. Viewed from the supply side, the leading sector is the most superior sector in its growth in biophysical conditions, technology and socio-economic conditions of farmers in a particular region. This socioeconomic condition includes mastering technology, human resource capabilities, infrastructures such as markets and local farmers' habits. This understanding is closer to locational advantages, whereas, in terms of demand, the leading sector is a sector that has strong demand for both the domestic and international markets and a competitive advantage. Potential sectors at the provincial level are not necessarily potential in an area. Leading sectors must have the advantage of being comparatively superior and competitively superior. The comparative superior sector is having the support of an economic, social and institutional source of an area such as ownership of natural resources, human resources, infrastructure, and others. A competitive sector that is superior is the efficiency of managing the use of these resources in production, consumption, and distribution and the rate of growth tends to be fast. Comparative advantage is more specific or ownership of production factors (given) while competitive advantage focuses on affordable management.

D. GDP

One indicator that is usually used to determine the economic conditions of a region is the Gross Regional Domestic Product (GDP). GDP is the sum of all gross added value arising from various business sectors/fields that carry out their activities/businesses in certain regions/regions
productivity of a region, the shift in structure, the relative changes in stock and net exports are exports minus imports institutions those who do not seek profits, government expenditure made for household consumption, private social third in terms of expenditure, GDP is the amount of produced by production units in an area (province or district / city) regardless of whether the production variable originated or owned by residents of the area or not. Tarigan (2004) states that regional income figures in a few years illustrate the increase and decrease in income levels of people in the area. Increase / decrease can be divided into the following two factors:

a. Real increase / decrease, namely the increase / decrease in income level which is not affected by the price change factor. If there is a real increase in population income, the purchasing power of the population in the area increases, for example being able to buy goods of the same quality in greater numbers.

b. The increase / decrease in income caused by a price change factor. If there is an increase in income which is only caused by inflation (decreasing value of money purchase), even though income increases, the amount of goods that can be purchased is not necessarily increased. Keep in mind which ones increase more sharply, level of income or price level.

Therefore, to find out the actual (real) income increase, the inflation factor must be issued first. Regional income in which there is still an inflation element is called regional income on the basis of current prices. While regional income with the eliminated inflation factor is called regional income on the basis of constant prices. To find out whether people’s purchasing power increases or not, their income must be compared to a constant value. For this reason, regional income is presented in two forms of GDP at constant prices and GDP at current prices. GDP on the basis of constant prices shows the added value of goods and services calculated according to base year price, which in this study was used in 2000. GDP at current prices shows the added value of goods and services produced and calculated according to current year prices.

To calculate GDP, there are three calculation methods commonly used, namely: first in terms of production, GDP is the amount of product value of the final goods and services produced by production units in an area within a certain period. Second in terms of income, GDP is the amount of remuneration received by production factors that participate in the production process in an area within a certain period and third in terms of expenditure, GDP is the amount of expenditure made for household consumption, private social institutions those who do not seek profits, government consumption, the formation of gross domestic fixed capital, changes in stock and net exports are exports minus imports (BPS, 2008).

E. Shift Share Analysis

This analysis is used to determine the performance or productivity of a region, the shift in structure, the relative position of economic sectors and the identification of potential economic sectors of an area and then compare them with larger regions (regional / national). This analysis provides data on economic performance in 3 fields related to each other (Arsyad, 1999). Three interconnected fields include:

a. National growth (National growth effect) is used to determine the growth or shift in the structure of the economy of a region that is affected by a shift in economic growth in the higher regions (provinces).

b. Proportional shift or influence of industrial mix. This component shows whether economic activity in the sector or industry in the region grows faster or slower than the growth of economic activity at the provincial level.

c. Differential shifts (differential shifts) are used to assist in determining how far the competitiveness of regional sectors or industries with the provincial economy. If the shift in sector differentials is positive, the sector has a higher competitiveness than the same sector in the provincial economy.

F. Location Quotient Analysis (LQ)

Location Quotient Analysis is an analytical technique used to expand the shift share analysis. The results can help planners determine the export capacity of the regional economy and are often used to understand the degree of self-sufficiency in an economic sector in a particular administrative area. According to Hood (1998), LQ is a simpler economic development tool with all its advantages and limitations. LQ analysis measures relative concentration or degree of specialization of economic activities through a comparative approach (Kuncoro, 2002). Arsyad (1999) suggested that this analytical technique can sort out the economic activities of a region into two parts, namely:

a. Economic activities that can serve the regional markets themselves or outside the region concerned. This kind of economic activity is called basic economic activity or basic industry.

b. Conversely, if an economic activity can only serve the market in the area concerned, then this economic or industrial activity is referred to as an industry or local economic activity or non-basic industry.

With the advantages possessed by Location Quotient analysis, according to Miller et al (1991), Isserman (1997), and Hood (1998) the results of the analysis can be used to determine the comparative advantage of an area in order to determine the superior sectors and commodities in a regional economy.

G. Previous Research

Related research to the role of the leading sector in regional economic growth has been done quite a lot, among others by Akhmas Hudan R.H and Kirwani (2012). As for the title of the research is the Leading Sector Development Identification and Model in Sidoarjo Regency. This study aims to determine the leading sectors in the economy of Sidoarjo Regency and its development model as information material...
and consideration in economic development planning. This study uses secondary data in the form of data from the Brutto Regional Domestic Product (GRDP) from 2007 - 2011 (time series) of Sidoarjo Regency and East Java Province. The analytical tool used in this study, namely Locations Quotient (LQ) Analysis and Shift Share Analysis. The results of the Locations Quotient (LQ) Analysis and Shift Share Analysis show that the leading sectors with criteria as a base sector and having competitiveness are the manufacturing industry. The model of economic sector development in Sidoarjo Regency is directed to multisectoral and sustainable development.

Nuning Setyowati (2012) entitled analysis of the Role of the Agricultural Sector in Sukoharjo Regency. The conclusion of this study is that the agricultural sector is a base sector in Sukoharjo regency where the agricultural sector is able to meet local needs and the production surplus can be exported out of the Sukoharjo area. The number and rate of labor absorption in the agricultural sector in Sukoharjo tends to fluctuate between 2005-2009. The multiplier in the agricultural sector in Sukoharjo Regency tends to decrease which indicates the role of the agricultural sector in expanding employment opportunities both in agriculture and in other sectors / sectors.

Suslinawati (2012), conducted a study on the Analysis of Leading Agricultural Commodities and Development Areas in Banjarbaru City. This study aims to find out which types of superior and prioritized agricultural plants will be developed. This study analyzes the Location Quotient (LQ) analysis using secondary data 2007-2011 (time series) sourced from the central statistics bureau of the city of Banjarbaru. The results showed that the agricultural sub-sector and horticultural crops were superior. Superior vegetable plants were developed in the Ulin Landasan area, rice plants in Cempaka Regency.

Asrul Azis (2012) conducted a research on the Analysis of the Leading Regional Sector of Coal Regency. The results show that there is only one (1) developed and rapidly growing sector, namely the manufacturing industry, while the trade, hotel and restaurant sector is an advanced but depressed sector. The results of the calculation of the Location Quotient index for the sector which is the base sector (LQ> 1), namely the manufacturing industry sector, and the trade, hotel and restaurant sector. The results of the shift share analysis indicate that the sector which has the greatest local potential in Batu Bara Regency, namely the processing industry sector. Based on the results of the calculation of the Klassen Typology, Location Quotient (LQ), and Shift Share analysis shows that there is one sector which is a superior economic sector with criteria classified into advanced and rapidly growing sectors, is a base sector, and greater local potential is processing industry sector.

Ariyasa (2009) conducted research in Gianyar Regency, about the identification of leading sectors using the Location Quotient analysis tool, Growth Ratio Model and overlay can be concluded that, the superior economic sector, both in terms of growth and contribution that can be set as development priorities in Gianyar Regency is the sector services. Furthermore, the dominant economic sub-sector in Gianyar Regency is the food crop sub-sector, the financial support service sub-sector, the general government service sub-sector and the private services sub-sector. From several studies that have been conducted, there are similarities between this research and previous research, namely the use of GRDP variables and analysis tools used, but the distinguishing factors are location / research area (Bangli Regency and Bali Province) and time series data 2006 - 2010.

III. RESEARCH METHOD

A. Research Location

This research was conducted in Bangli Regency based on the consideration that Bangli Regency had the lowest GDP among the nine regencies / cities in Bali. In addition, the GDP share of Bangli Regency towards the GDP of the Province of Bali is also the lowest among the nine other districts/cities. The rate of growth was also low, so planning was needed to increase the GDP of Bangli Regency.

B. Data Types and Sources

The data used to support the analysis in this study are secondary data in the form of quantitative data namely GDP data according to the business field based on constant prices of 2000 Bangli Regency in the period of 2013 - 2017, and GDP according to the business field on the basis of constant prices of the 2010 Bali Province in 2013 - 2017. C. Identification of Research Variables The variables used in this study are as follows. 1) Bali Province's Gross Regional Domestic Product (GDP) according to the business field of 2013-2017 on the basis of constant prices in 2010. 2) Bangli Regency's Gross Regional Domestic Product (GDP) according to the 2013-2017 business field on the basis of constant prices in 2010.

C. Data Collection Method

Data collection method used is documentation method. Data is obtained by digging data from reports, notes or books related to this research such as Bangli In Figures, Bali Province GDP, Bangli Regency GDP and others.

D. Data Analysis Techniques

The analysis model used in this study is the Shift Share analysis to determine the economic structure of Bangli regency and the Location Quotient (LQ) analysis is used to determine the leading sectors and superior commodities.

IV. RESULTS AND DISCUSSION

A. Results of Shift Share Analysis

Shift share analysis is used to determine the economic structure of Bangli Regency during the 2013-2017 period. In this study the shift share analysis used is the classic shift share analysis and shift share analysis of Estaban Marquiles modification. The purpose of shift analysis shares the modification of Marquiles Estimate to cover the shortcomings of the classic shift share analysis.
In the analysis of the classic shift share of Bangli Regency in the period 2013-2017, the value of GDP change in Bangli Regency was obtained at 186,571 million rupiahs. This growth was influenced by the growth component of Bangli Regency amounting to 227,418 million rupiahs, the industrial mix of (-29,531) million rupiah and competitive advantage of (-11,315) million rupiah. The result of shift-share analysis modification of Esteban-Marquillas in Table 3 shows that the component of competitive advantage modified by Esteban-Marquillas produces a value of competitive advantage with homothetic employment C'ij amounting to (-38,252 million rupiah) and Aij allocation effect worth 26,937 million rupiah.

B. Results of Location Quotient Analysis

Based on the results of the LQ analysis, each sector in Bangli Regency from 2013 to 2017 shows that there are three sectors whose LQ value is greater than one, hereinafter referred to as the base sector. The sector which is the base sector for Bangli Regency, namely the agricultural sector, the building sector, and the services sector. Of the three basic sectors of Bangli Regency, the agricultural sector is the base sector which has the largest LQ value of 1.77 while the building sector is 1.29 and the services sector is 1.42. Furthermore, it will be further analyzed until the commodity stage of each base sector but the building sector is not continued due to limited data.

C. Discussion

The 2013-2017 period of economic development in Bangli Regency is slower than the growth of Bali Province. This is indicated by the overall negative value of the industrial mix or Proportionally Shift (Mij), which is Rp. (29,531) billion. By sector, there are four sectors whose growth is faster than the average economic growth of Bali Province, namely the processing industry, electricity, gas and water supply, trade, hotels and restaurants and the transportation and communication sector. The trade, hotel and restaurant sector is the sector that has the highest industrial mix. This means that this sector at the provincial level has faster growth than average economic growth, considering that Bali Island is one of the popular tourist destinations in Indonesia. While the sector that has the lowest industrial mix value is the agricultural sector, which is Rp. (46,536) billion. This means that the agricultural sector at the provincial level has a slower growth than average economic growth, so Bangli Regency loses revenue of Rp.46,536 million from the agricultural sector.

Competitive advantage or Differential Shift (Cij) shows how much competitiveness of a sector in Bangli Regency is compared to the same sector in Bali Province. Overall sectoral competitiveness in Bangli Regency is lower than the Province. This is indicated by the negative value of competitive advantage that is Rp. (11,315) million. However, if viewed by sector, there are four sectors that have higher competitiveness than the same sector in the Province, namely the agriculture, electricity, gas and water supply sectors, finance, leasing and business services and the services sector. However, the highest competitiveness was in the agricultural sector, which amounted to Rp.21,939 million and was supported by the food crops sub-sector which had a high competitiveness of Rp.33,144 million. While the sector that has the lowest competitiveness is the trade, hotel and restaurant sector with a competitive advantage of Rp. (-31,137) million.

Based on the shift-share analysis modification of Esteban-Marquillas, in aggregate the value of competitive advantage with the element of homothetic employment for Bangli Regency is Rp. (-38,252) million and the value of the allocation effect is Rp. 26,937 million. This means that in aggregate Bangli Regency does not have a competitive advantage but has specialization. However, when viewed from the effect of the allocation of the sector in Bangli Regency, there are two sectors that have competitive advantages and specializations namely the agricultural sector and the services sector. This competitive advantage is due to the natural conditions of Bangli Regency which support the development of agriculture and specialization also created due to large natural resource potential and the role of large market demand for local agricultural outputs. The results of the LQ analysis show that there are three basic sectors for Bangli Regency, namely the agricultural sector, the building sector, and the services sector.

LQ analysis emphasizes comparative advantage, so that the three sectors have comparative advantages in Bangli Regency. According to Tarigan (2004), there are a number of factors that can make a region have a comparative advantage, can be in the form of natural conditions, that is a given but can also be due to human efforts or the community mastering special skills. Bangli regency with an area that is a high land has cool cool weather and high rainfall, making this area an area suitable for agricultural activities. In addition to the agricultural sector, Bangli Regency also has comparative advantages in the building sector. This took place along with the rapid development of physical facilities and infrastructure in the area, so the building sector is one that has the opportunity to continue to grow, this situation occurs not only in Bangli but also in Bali in general. The service sector is also a sector that has comparative advantage in Bangli Regency, one of the causes is an increase in the number of state servants in the government environment which has increased from year to year.

V. CONCLUSION

The results showed that the economic growth rate of Bangli Regency in the 2013-2017 period was slower than the general economic growth in Bali Province. The potential economic sector that is used as the leading sector is the agricultural sector and the services sector.

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