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## **The Impact of Regional Expansion on Economic Structure: A Case Study in Lampung Province, Indonesia**

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### **Abstract**

Different potential economic sectors in the main district and expansion can occur because there are differences in the characteristics and potential of each area. This research aimed to determine the economic structure in main district and expansion, to analyze the impact of the expansion towards the potential economic sectors, and to formulate the policy of potential economic sector development in post-expansion. Lampung Province, Indonesia, was used as the case study, i.e. in Tanggamus and Tulang Bawang Districts. These districts have expanded to Pringsewu, Mesuji, and West Tulang Bawang as the new autonomous regions. The method that used in this research was quantitative descriptive approach with an analysis of Location Quotient, Shift-Share Analysis, and Klassen Typology. The results showed that there were differences in the economic structure after expansion in the District of Pringsewu with dominance in the tertiary sector/services, while the main District of Tanggamus dominated in primary sector/agriculture. The District of Mesuji and West Tulang Bawang had relatively similar in economic structure with the main district of Tulang Bawang. The development of potential economic sectors prioritized in advanced sectors with high growth, considering the local and regional potential, the quality of human resources, the distance location, regulation, roads infrastructure, and other supporting facility and infrastructure.

**Keywords:** economic structure; Klassen Typology; location quotient; regional autonomy; shift-share analysis

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## **1. Introduction**

Pringsewu District, Mesuji, and West Tulang Bawang are a New Autonomous Regions in Lampung Province, Indonesia which are expanded from Tanggamus and Tulang Bawang Districts in 2008 under the Law Number 48, 49, and 50 year 2008. The fundamental reasons for expanding region are to improve the welfare of local people, improving services, and shorten the control range (span of control) [1]. In early development, the District of Pringsewu has recorded good economic performance with the pace of economic growth in 2010 and 2011 was 6,95% higher than the main district/Tanggamus that is 5,79%, but began to decline in 2012. Otherwise, in the early development of Mesuji District and West Tulang Bawang, the economic performance is lower than the main district of 5,92%, 5,89% compared to 6,19%. However, it's began to increase in 2012 [2]. Mesuji District as DOB has achieved PDRB ADHK per capita in greater range of 6-7 million, compared with its main district (Tulang Bawang) that only 5-6 million during the last 5 years (2009-2013). While the District of West Tulang Bawang and Pringsewu still have a PDRB per capita lower than its main district.

The economic growth and PDRB per capita that higher than the main districts like Mesuji District, the economic growth and PDRB per capita that lower than the main districts like the District of Pringsewu, and the lower economic growth than the main district but PDRB per capita is higher than the main districts like the District of West Tulang Bawang are interesting patterns of expansion effects to be studied. According to , the rate of economic growth in the New Autonomous Regions (DOB) in 2001-2007 is lower than the economic growth in the main district. The main district have levels of PDRB per capita better than the DOB, the poverty rate in DOB region is relatively high (reached in 21,4% of total population) compared with the main region (16,7%). The condition of DOB in the three expansion districts in the Province of Lampung is slightly different from the results of Bappenas. The poverty rate in the District of Pringsewu, Mesuji, and Tulang Bawang during the period of 2010-2013 showed decreasing trend that is from 12,45% to 9,8%, 8,65% to 5,81%, and 7,63% to 6,31%. This DOB poverty level is lower than the main district Tanggamus and Tulang Bawang which reached as much as 15,24% and 8,04% in 2013. While the study results of Kuncoro [1] stated that the economy condition which measured by PDRB per capita, poverty rate, and IPM during observation (1987-2007) in the District of West Lombok, Bima, and Sumbawa become better after the expansion than before the expansion.

The increased of economic growth is an imperative requirement in order to reduce the unemployment and poverty [4], but the terms must not enough. Adequacy requirement is to improve the quality of economic growth in order to have a higher absorption of the workforce or labor and spread the benefits of growth more evenly so can encourage the sustainable empowerment of the poor. According to Todaro [5], there are four key dimensions of economic development, namely growth, poverty reduction, alteration or transformation of the economy, and sustainable development from an agrarian society into an industrial society. Structural transformation is a prerequisite of the improvement and sustainability of growth and poverty reduction, as well as support for sustainable development itself. The process of structural change in the economy characterized by declining share of the primary sector (agriculture), an increasing share of the secondary sector (industry), and the share of the tertiary sector (services) which is also contributed to the increase in line with economic growth. The economic growth of expansion district which is higher than the main district, chances formerly an area that has evolved before the expansion or an area of largest contributor to the budget (APBD) for the district before

the expansion. The expansion district which the economic growth is lower than the main district likely before the district is an area that is neglected in the development or potential areas is inadequate [6].

Some differences of potential economic sectors in DOB with main district can not be separated from the differences in the characteristics and potential of each area. The impact of expanding region towards potential economic sectors in main district and expansion is interesting to be studied further. Based on the report of Kemendagri [7] about the Autonomous Regional Evaluation Results of Expansion (EDOHP), the District of Pringsewu, Mesuji, and West Tulang Bawang belong to a low DOB categorized and increasing the competitiveness of the region that is rated in 187, 161, and 166 of 198 DOB across Indonesia. Accordingly, need to study the impact of the expansion towards the potential economic sectors in the main district and expansion district, namely 1) how the economic structure of the main district and expansion? 2) analyze the potential economic sectors that are competitive as a result of the impact of the expansion in the main district and expansion; and 3) how the formulation of policy for the development of a potential economic sectors for the main district and expansion in post-expansion?

## **2. Materials and Methods**

The research analyzes the potential economic sector conducted in the District of Tanggamus, Tulang Bawang as a main district and Pringsewu District, Mesuji, as well as the district of West Tulang Bawang as an expansion district. The definition of main district (KI) in this study was a new autonomous district either one or more districts, while the district of expansion (KP) was a newly district which is fomed from the district of expansion or often referred to as the new autonomous regions (DOB). Pringsewu District was the expansion district (KP) of Tanggamus district, while the District of Mesuji and West Tulang Bawang were a KP of Tulang Bawang District.

The methods of analysis in this research used a quantitative descriptive analysis approach. The analysis of the region's comparative advantage (Location Quotient Analysis) used to indicate the location of concentration/base [8]; [9]; [10] applied the traditional model for combining trade through the disaggregation of the components of growth and industry mix components. Economic Base Analysis (LQ) aimed to determine whether a sector has been able to meet the needs of the area itself (subsistence), less or even more/surplus. Sectors which is surplus said to be a sector base and has the export potential [11]. Analysis of Regional Competitive Advantage (Shift-Share Analysis) used to describe the performance of an activity in a sub-region and compared with the performance in the total area. To see the position of the sector in the category of developed (advanced) or underdeveloped and have a rapid or slow growth used Klassen Typology [12], with four categories, namely: 1) an advanced sector and grow rapidly, 2) an advanced sector but oppressed, 3) a potential sector or can still develop rapidly, and 4) a relatively underdeveloped sector.

The main data used were secondary data of Gross Regional Domestic Product (PDRB) at current prices (ADHB) and PDRB at constant prices (ADHK) of five districts, namely Tanggamus, Tulang Bawang, Pringsewu, Mesuji, and West Tulang Bawang in period of 2004-2013.

Supporting data used including population, land area, the potential of the district, the amount of labor absorption, the center distance of the capital, infrastructure originating from the publication of the Central Statistics Agency (BPS) as District In Figures, Lampung in Figures, Regional Economic Outlook in Lampung Province published in the period of 2012-2014, and some other data sourced from several publications issued by various agencies relevant to this study.

### **3. Results and Discussion**

#### ***3.1 The Overview of Economic Performance***

Until the year 2013, the economy of Lampung is still dominated by four (4) sectors of economic activities namely agriculture, trade/hotels/restaurants, manufacturing and transport/ communications. The economic structure of the region is reflected in the PDRB level of contribution of each economic sector to the total of PDRB. By knowing the economic structure of the region, the economic development efforts can be directed in accordance with the aspirations of the people and the potential of the region [13].

The District of Tanggamus and Tulang Bawang are the district contributor of 60 percent contribution in agricultural sector (6-8 percent) in the province of Lampung besides the District of Central Lampung, South Lampung, and East Lampung since before the expansion to the year of 2013. The contributions of agriculture sector in Tanggamus and Tulang Bawang District in post-expansion in 2008 are getting smaller because partially of agricultural land is divided into expansion territory. For the other sectors (manufacturing, trade/hotels/restaurants, and transport/communication) are dominated by the District of Central Lampung, South Lampung, North Lampung, Tulang Bawang, and Bandar Lampung.

Pringsewu district, Mesuji, and West Tulang Bawang as the DOB of young age, are still not able to provide a large contribution to the dominant sectors in the Province of Lampung as well as the District of Central Lampung, South Lampung, East Lampung, Tulang Bawang, Bandar Lampung, and Tanggamus. However, the development of economic performance of DOB is quite well with the rate of average economic growth of the last 4 years (2010-2013) still above 5,75 percent.

In the period of 2004-2008, before the expansion, in the District of Tanggamus only agricultural sector that showed the trend of the development of the sector's contribution to PDRB which has increased from 48,05% to 57,8%, eight other sectors tend to decline. While in the District of Tulang Bawang in addition to the agricultural sector which has increased the development trend from 42,74% to 45,05%, mining and quarrying and transport and communications sector also showed a trend increase in the contribution of the sector to PDRB. In the post-expansion period of 2009-2013, the agricultural sector in Tanggamus District had a decreased contribution to PDRB from 57,96% to 51,31%. One reason for the declining contribution of the agricultural sector in the District of Tanggamus allegedly is the expansion of Pringsewu District in 2008. From the total area of 284.175 ha of agricultural land previously with details of 39.979 ha were paddy fields and as much as 244.196 ha of non-paddy fields were reduced by 10.843 ha of paddy fields and 37.919 ha of non-paddy fields or approximately 17,16 percent of agricultural land reduced in Tanggamus District (data source from PODES 2008) including a

reduction of human resources (population) of 41 percent.

In Tulang Bawang District, the contribution of the agricultural sector after the expansion continued to show an upward trend from 41,79% to 49,48%. However, eight other sectors had a decrease contribution to PDRB. The development sector of the business field in the main district and expansion in the year of 2009-2013 can be seen in Table 1. In the Post-expansion, the District of West Tulang Bawang as DOB had a development trend of increased agricultural sector (46,47% to 49,28%) which is directly proportional to its main district, with the contribution of the largest contributor in the food crops sub-sector, followed by livestock sub-sector and its results (West Tulang Bawang), the fisheries sub-sector (Tulang Bawang), and the plantation crops sub-sector. The increase also occurred in the secondary sector (construction) and tertiary sector (trade, hotels and restaurants; transport and communications) with dominated by wholesale sub-sector and retail trade and transportation sub-sectors. Meanwhile, the development trend of the contribution of the agricultural sector in Mesuji District as a result of expansion DOB Tulang Bawang even more decreased (49,28% to 46,34). The sectors that experienced a trend of increasing contributions were the construction sector, trade, hotels and restaurants with dominated by wholesale sub-sector and retail trade; services sector. The contribution of the agricultural sector was still dominant in the District of Pringsewu about 37 percent, but the development trend of the contribution of post-expansion in the year of 2009-2013 showed a downward trend.

Figure 1 and Table 2 showed that the agricultural sector was still the dominant sector in absorb the labor and labor sector basis. In the District of Mesuji, although the last five years (2009-2013) the contribution of the agricultural sector continued to decline, but the absorption of the agricultural sector to the labor reached in the amount of 78 percent. Inversely proportional to the secondary and tertiary sectors, while the contribution of the sector was high, the absorption of labor (TK) was low. This condition occurred in almost all districts, except for the trade sector, hotels, and restaurants (16% with the data absorption of TK 19%) in Tulang Bawang and manufacture industry (9% with the data absorption of TK 17%) in the District of Pringsewu. This condition indicates that the secondary and tertiary sectors in the district was not labor intensive but capital intensive. However, according to Jula and Jula [14], the structural changes of labor in agriculture sector, mining and quarrying, electricity, gas, and water were not caused by structural changes of labor in secondary and tertiary sectors and the structural changes of labor in the secondary and tertiary sectors were not caused by the structural changes of labor in the primary sector. Structural change generally had a positive effect on labour productivity during these years, although it appears to be basically dominated by the effects within productivity growth [15].

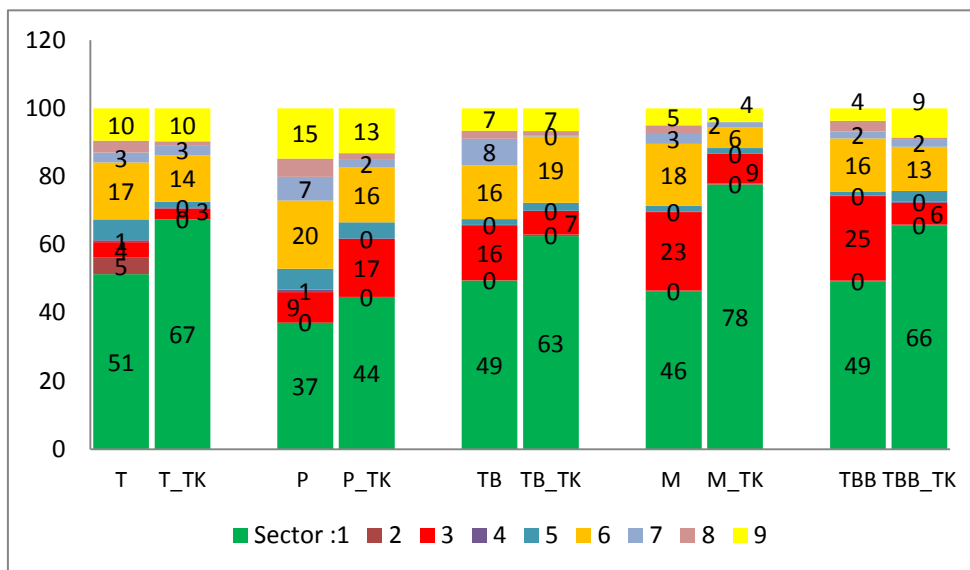
To view the economic structure of main district and expansion more simply, sectors that contribute to the PDRB during five years averaged and divided into 3 sectors, namely primary sector, secondary, and tertiary as shown in Figure 2. Based on Figure 2, it can be seen that the economic structure of main district and expansion dominated by the primary sector (agriculture) except Pringsewu District which is dominated by the tertiary sector (services). [Fisher [16]] adopted a tripartite decomposition of economics by distinguishing between primary, secondary, and tertiary. The primary sectors were a combination of agriculture, mining, and quarrying. Secondary sectors were a combination of manufacturing, electricity, gas, water, and construction sectors. While the tertiary sectors were a combination of trade, hotels, restaurants, transport and communications, financial sector, companies and companies services, as well as the services sector.

**Table 1:** The sector development based business field of main district and expansion in the year 2009-2013

No.	District/City	1	2	3	4	5	6	7	8	9	Total ↑
<b>Main District I</b>											
1	Tanggamus	↓	↑	↑	↓	↑	↑	↑	↓	↓	5
2	Pringsewu	↓	⊙	↓	↓	↓	↓	↑	↓	↑	2
<b>Main District II</b>											
3	Tulang Bawang	↑	↓	↓	↓	↓	↓	↓	↓	↓	1
4	Mesuji	↓	⊙	↓	↓	↑	↑	↓	↓	↑	3
5	West Tulang Bawang	↑	↓	↓	⊙	↑	↑	↑	↓	↓	4
<b>Modus</b>		↓	↓	↓	↓	↑	↑	↑	↓	↓	3

Description: ↑ = rising; ↓ = down; ⊙ = constant

- 1= Agriculture
- 2= Mining and Quarrying
- 3= Manufacture Industry
- 4= Electricity, Gas, and Drinking Water
- 5= Building/Construction
- 6= Trade, Hotels, and Restaurants
- 7= Transportation and Communications
- 8= Finance, Company, Company Services
- 9= Services



**Figure 1:** The contributions sector and absorption of labor (TK) in the main district and expansion of the year 2013. Description: T = Tanggamus; P = Pringsewu; TB = Tulang Bawang; M = Mesuji; TBB = West Tulang Bawang

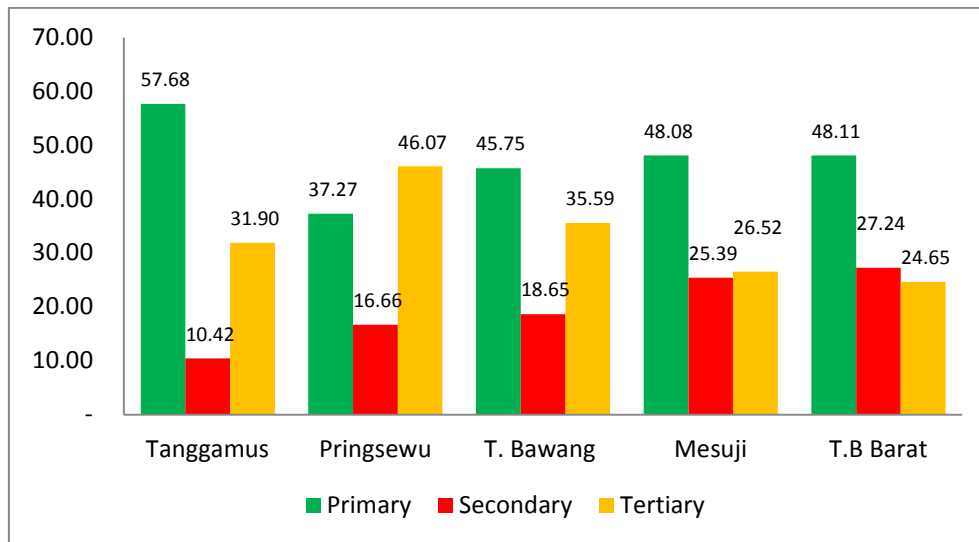
The biggest contribution came from trade sector, hotels, and restaurants, followed by the services sector, transport and communications, as well as finance, company and company services. The development of the contribution of the secondary sector (industry) in the District of Pringsewu as DOB was also higher than the main district. Thus, in the post-expansion, Pringsewu District had a different economic structure of its main district, where the service sector (tertiary) was more dominant than the agriculture sector (primary). According

to Santra, Kumar [17] in Bihar services sector, industry, and agriculture contributed for 52 percent, 28 percent, and 20 percent to the GDP of India. The secondary sector (industry) in the main district and expansion in the third rank in contribution to PDRB. In general, the industrial sector in DOB had a greater contribution than the main district.

**Table 2:** The results of base sector analysis of labor in the main district and expansion in the year of 2013

No.	District/City	1	2	3	4	5	6	7	8	9
Main District I										
1	Tanggamus	1,31	-	0,38	0,90	0,43	0,79	0,86	0,76	0,75
2	Pringsewu	0,86	0,68	2,04	0,74	1,10	0,93	0,66	1,35	1,02
Main District II										
3	Tulang Bawang	1,21	1,07	0,83	-	0,56	1,12	0,11	0,81	0,52
4	Mesuji	1,50	0,68	1,05	-	0,41	0,35	0,46	-	0,32
5	West Tulang Bawang	1,27	0,49	0,76	2,40	0,73	0,75	0,67	0,34	0,66

Description:  $LQ > 1$  = the sector of basis TK;  $LQ < 1$  = the sector of non basis TK



**Figure 2:** Average contributions sector of PDRB in the main district and expansion of theyear 2009-2013

### 3.2 The Case of Tanggamus District

Based on the analysis using LQ and SSA (see Table 3), the agricultural sector was the only basis sector in the District of Tanggamus before expansion area with  $LQ = 1,49$ . However, the growth in the agricultural sector, including slow. The slow growth in the agricultural sector actually happening in other districts in Lampung Province, indicated by the negative results of *shift proportional* in the agricultural sector. Meanwhile, non-base sectors in the period before the expansion in Tanggamus District who possess the rapid growth were the mining and quarrying sector, the rest was the slow/negative growth of other sectors.

After the expansion of the region, the agricultural sector remains a basic sector (LQ = 1,41). Although with slow growth, but still be a strategic sector for being able to absorb the labor force as much as 67 percent and a basis sector of the labor (see Figure 1 and Table 2). The agricultural sector has the potential to produce goods and services in addition to being able to meet market demand in the region also exported outside the region, either through inter-regional trade, trade between the island, and even foreign trade. Rice, crops, fruits, and vegetables were a reliable commodity in the food crops sub-sector. For the plantation sub-sector dominated by plantation cocoa commodity, coconut, and coffee (robusta).

Other bases sectors after the expansion area were mining and quarrying (LQ = 2,19), which prior to expansion, this sectors were not a basis sector but have rapid growth/positive. After the expansion of the region, the mining and quarrying sector became the basis sector of rapid growth, very potential to be developed by considering the ratio of the investment with labor absorption. This potential sector be developed in Tanggamus as in regional/provincial still experiencing the slow growth. Sub-sector that give dominant contribution was the quarrying sub-sector.

**Table 3:** The results of base sector analysis and competitiveness before and after expansion in The District of Tanggamus (KI) and Pringsewu (KP)

No.	Sector	PS	PS*	Analysis	Before	After
					Tanggamus	Tanggamus Pringsewu
1	Agriculture	-0,02	-0,06	LQ	1,49	1,41
				DS	-0,33	-0,06
2	Mining and Quarrying	-0,38	-0,10	LQ	0,70	2,19
				DS	0,02	2,18
3	Manufacture Industry	0,07	0,00	LQ	0,27	0,29
				DS	-0,76	0,00
4	Electricity, Gas, and Drinking Wa	-0,02	0,02	LQ	0,35	0,91
				DS	-0,53	-0,12
5	Construction	-0,05	-0,04	LQ	0,86	1,13
				DS	-0,57	0,46
6	Trade, Hotels, and Restaurants	-0,03	-0,02	LQ	0,93	1,01
				DS	-0,37	0,08
7	Transportation and Communicatio	0,11	0,16	LQ	0,39	0,41
				DS	-0,64	0,03
8	Financial, Company, and Company Services	0,28	0,18	LQ	0,57	0,59
				DS	-0,72	0,09
9	Services	-0,03	0,07	LQ	0,89	0,72
				DS	-0,55	-0,17

Description:

- LQ > 1 = Basis Sector; LQ < 1 = non Basis Sector
- DS/PS positive = Rapid Growth; DS/PS negative = Slow Growth
- PS = *Proportional Shift* DS = *Differential Shift*
- PS = Before Expansion PS \* = After Expansion

The construction sector was a basis sector after expansion the region. There was a potential for new construction that needs to be built and established in the District of Tanggamus although with slow growth. However,



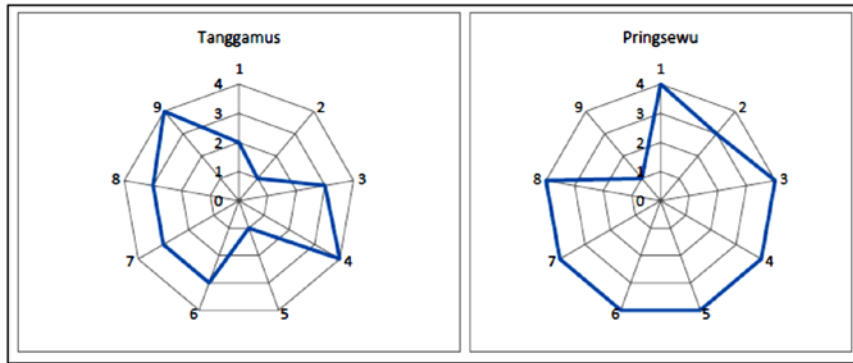
supported by trade, hotels, and restaurants were becoming a basis sector and have positive growth/fast. The growth of trade, hotel, and restaurant sector collaborated with building/construction potential to boost the contribution of PDRB in the District of Tanggamus after expansion area. Moreover, in the level of regional/provincial (PS), the growth in this sector was likely to slow down/ negative.

After the expansion of the region, the sectors such as manufacturing, transportation, communications, financial sector, company, and service were still not be a basis sector, but had a positive growth both locally and regionally, except for the manufacturing sector which in the level of regional/provincial, the sector growth slowed.

Based on the analysis of Klassen Typology, Arsyad [12], obtained the information that in the District of Tanggamus, mining and quarrying sectors, and construction sector were an advanced sector which were growing rapidly (Figure 3). Quarrying sub-sector was a dominant in the mining and quarrying sector, so that it was very supportive for the supply of raw materials in the construction sector. Therefore, infrastructure such as roads and transport need to be prepared properly. In 2013, available freight truck car as many as 291 pieces. Challenge in Tanggamus District was the conditions of the roads in average/good categorized (28%) from the total length of 1.301 km district roads. Including the anticipated development of the sector that needs attention was the environmental impact that will result from the activity of mining/quarrying. The position of the agricultural sector was in advanced sector but oppressed. The agricultural as the primary sector should continue to be developed in order to meet the needs of Tanggamus District both local and regional, including the ability of the sector to absorb the labor. For the development of the agricultural sector, needs to do the integration of improving the quality of human resources, institutional farmer, agriculture infrastructure, development of *saprodi* technology, as well as post-harvest.

In post-expansion of the District of Tanggamus in 2008, the District of Pringsewu became a New Autonomous Region (DOB) which had an authorized to autonomously take care of the government, including optimizing the potential of economic sectors. The agricultural sector in the early period of expansion the District of Pringsewu as DOB, was still a basis sector as the main district Tanggamus until 2010, but due to the growth of the agricultural sector likely to slow down, the agricultural sector was no longer a sector basis. However, the absorption of the labor in this sector was still very large about 44 percent for agricultural sector contributes only 33 percent in 2013. In addition, Pringsewu District only had 625 hectares of land area, with agricultural land use reached in 75 percent, but the area of Pringsewu District actually only 17 percent from the area of main district of Tanggamus (before expansion).

Pringsewu District had a basis sectors such as electricity, gas and water, construction, hotel and restaurant, trade and services sector. Electricity, gas, and water became a basis sector in the District of Pringsewu but experienced the negative growth for this sector. However, regionally/provincially, this sector experienced positive growth. So the opportunity to develop this sector as a basis sector by viewing regional growth was still considerable potential.



**Figure 3:** The radar diagram of Typology Klassen sector in the District of Tanggamus and Pringsewu year 2009-2013

Construction and trade sector, hotel and restaurant sector were also a basis sector in the District of Pringsewu as Tanggamus District after expansion. Only difference was, in the District of Pringsewu although a basis sector, the sector experienced a negative/slow growth as well as regional growth. So care should be taken in developing this sector as economic potential.

Other basis sector in the District of Pringsewu which is potentially developed was services sector with  $LQ = 2,52$ . The growth in this sector was positive/fast and supported by regional growth that also positive. In the main district of Tanggamus, before and after the expansion, the service sector was not a basis sector. The development of the service sector in the District of Pringsewu also potential for the labor market. This sector was a basis sector of the potential labor force (see Table 2). For the absorption of labor in the service sector by 33 percent in 2013 (see figure 1).

The changes of the economic structure in the District of Pringsewu from the pattern of economic structure in main district/Tanggamus namely primary sector/agriculture showed a new economic growth center in the District of Pringsewu which concentrated in the service sector. According to Perroux (1955) in citation from Sjafrizal [18] stated that economic growth tends to be concentrated in certain areas that driven by Agglomeration economies which were arising from the concentration of economic activity. In countries that the members of SAARC (South Asian Association for Regional Cooperation), generally, structural transformation begins with the declining contribution of agriculture to the Gross National Product in the economy, and the increasing contribution of the services sector was a leading sector, India was one of them, because the countries that the member of SAARC generally immature as an industrial economy, unlike developed countries [19]. According to Dietrich and Krüger [20], the research in Germany with the data from 1850 to 2001, explained that the long-term structural changes in the economic development in three main sectors of the economy follows the typical pattern namely the primary sector (agriculture, mining) which dominates at the beginning, followed by secondary sector (manufacturing), and finally by the tertiary sector (services). A declining employment share of agriculture is a key feature of economic development. Its main drivers are improvements in agricultural technology combined with Engel’s law release resources from agriculture (“labor push”), improvements in industrial technology attract labor out of agriculture (“labor pull”) [21].

In the District of Pringsewu, by looking at the results of the analysis of the Klassen Typology (Figure 3), the services sector was a sector that in the advanced position and growing rapidly. According to Thakur [22], the Fundamental Economic Structure (FES) concept implies that selected characteristics of an economy will vary predictably with the region size. With an area of 625 km<sup>2</sup> and a population of 379.190 inhabitants, Pringsewu District can be categorized as a medium city/district with a population of 100.000 to 500.000 inhabitants. Pringsewu District had a population density of 607 inhabitants/km<sup>2</sup> denser than the Districts of Tanggamus as the main district (185 inhabitants/km<sup>2</sup>). With the expansion of Pringsewu District from Tanggamus District, the distance center of economic activity and administrative where the capital city of Pringsewu was in the provincial capital, being closer at 41 miles compared to when they united with Tanggamus District. The government center was in the City of Agung, Tanggamus District with the distance of 81 km from the provincial capital. According to Hoover and Giarratani [23], the location factor, distance, and accessibility become the factors that play an important role in regional economic analysis. As well as goods and services although it could be moved, but require a transfer fee to move it. This means that after the expansion into DOB, the Districts of Pringsewu likely to depress economic of the high costs with the approach of the center of government and economic services, especially supported by adequate infrastructure.

Recorded in transportation statistics in 2013, the amount of public transport buses around 14 pieces and truck transport as many as 1.128 in 2012 increased to 1.235 in 2013 [24]. Besides, the mini bus/station wagen as much as 1.666 pieces, car pick up as many as 942 pieces, as well as 2-wheel vehicles as much as 41.337 pieces [25]. By the facility of transportation, the more support Pringsewu District which is dominated by its PDRB contribution of the tertiary sector (services). Hurst [26] suggested that the interaction between the regions is reflected in the state of transportation facilities as well as the flow of people, goods, or services. Transportation is a measure of the spatial interaction between region and a very important role in supporting the process of development of a region, including support for the good enough road conditions in the District of Pringsewu. The country road along 28 km and the provincial road along 48 km in the paved road conditions become a sufficient assets to spur economic growth in the region, although still need to improve the conditions in the connecting road between the regions of Pringsewu District. Three sub-districts in the District of Pringsewu, namely Pringsewu Sub-district, Pangelaran, and Gading Rejo are the one that passed by country road. This condition is potentially facilitate the access of Pringsewu District to further develop the service sector. Communications sector contributed communication in the potential service sector. Until the year of 2011, recorded the number of customers and STT in the District of Pringsewu for the type of wire line services as many as 2.404 and as many as 585 for the customers of speedy.

### ***3.3 The Case of Tulang Bawang District***

In the District of Tulang Bawang, the agricultural sector was a basis sector (LQ = 1.23) which is a mainstay of the district with the population of 800.000 inhabitants. Although *Proportional Shift* in the region was negative, *Differential Shift* in Tulang Bawang District recorded positive with rapid growth. Other potential economic sectors that owned by Tulang Bawang District before the expansion was the manufacturing sector, but with slow growth. Trade sector, hotels, and restaurants were a basis sector in Tulang Bawang District. This sector had a positive growth when the regional growth in this sector was slowing. And the last sectors which a basis sector

before the expansion in Tulang Bawang District were the transport and communications sector. At the local level, the slow growth of the sector (DS negative), although regionally this sector was growing rapidly (PS positive).

After the expansion of the region, the agricultural sector remains a basis sector (LQ = 127) in the District of Tulang Bawang although agricultural growth slowed down after the expansion. However, the absorption of labor in this sector still dominant around 67 percent, the agricultural sector was also a basis sector of labor. Approximately 68 percent of agricultural paddy field and non-paddy field available in the District of Tulang Bawang which total area of 3.466 km<sup>2</sup>. Food crop sub-sector, the sub-sector of plantation, and fishery sub-sector were the largest sub-sector contributing to PDRB. The main commodity of food crops sub-sector were rice and cassava, plantations sub-sector were the oil palm plantations, sugarcane, and rubber. For the fisheries sub-sector contributions came from inland and marine fisheries.

**Table 4:** The results of base sector analysis and competitiveness before and after expansion in the District of Tulang Bawang (KI), Mesuji (KP<sub>1</sub>), and West Tulang Bawang (KP<sub>2</sub>)

No.	Sector	PS		Analysis	Before Tulang Bawang		After Mesuji West T.Bawang	
		PS*						
1	Agriculture	-0,02		LQ	1,23	1,27	1,39	1,26
			-0,06	DS	0,15	-0,05	0,04	0,03
2	Mining and Quarrying	-0,38		LQ	0,17	0,17	0,09	0,11
			-0,10	DS	3,54	0,10	0,01	-0,05
3	Manufacture Industry	0,07		LQ	1,79	1,20	1,71	1,90
			0,00	DS	-0,04	0,02	-0,07	0,00
4	Electricity, Gas, and Drinking Water	-0,02		LQ	0,14	0,26	0,03	0,22
			0,02	DS	0,93	0,05	-0,32	0,02
5	Construction	-0,05		LQ	0,35	0,35	0,32	0,46
			-0,04	DS	-0,01	-0,13	-0,08	-0,12
6	Trade, Hotels, and Restaurants	-0,03		LQ	1,14	1,01	0,83	0,97
			-0,02	DS	0,02	-0,12	-0,13	-0,11
7	Transportation and Communications	0,11		LQ	0,83	1,22	0,37	0,28
			0,16	DS	-0,12	-0,02	-0,15	-0,14
8	Financial, Company, and Company Services	0,28		LQ	0,52	0,36	0,38	0,43
			0,18	DS	-0,23	-0,29	-0,19	-0,26
9	Services	-0,03		LQ	0,37	0,54	0,32	0,37
			0,07	DS	-0,09	0,03	0,04	-0,04

Description:

- LQ > 1 = Basis Sector;                      LQ < 1 = Non-Basis Sector
- DS/PS positive = Rapid Growth;                      DS/PS negative = Slow Growth
- PS = *Proportional Shift*                      DS = *Differential Shift*
- PS = Before Expansion                      PS \* = After Expansion

The manufacturing sector also remains a basis sector after expansion of the region, even with positive growth/rapid (DS positive) than before the expansion. The development of this sector was quite potential because it supported by labor which was also a basis in this sector. Medium industrial/large as much as 182 units and small industries, the results of agriculture and plantations were around 10.715 units with a total

investment of 9,8 trillion rupiah [27]. According to Kuznets [28], the development in many countries up to the 1960s as the third of his six characteristics of modern economic growth, stating that the rate of structural transformation of the economy is high. Major aspects of structural change include the shift away from agriculture to non-agricultural pursuits and, recently, away from industry to services.

The others sector which still became the basis in post-expansion, namely trade sector, hotel, and restaurant. Those sector were still able to be a basis despite slower growth than before the expansion. This can happen because of regionally the value of PS was negative. The sub-sector dominated by wholesale and retail trade sub-sector. There were a shop (279 units), kiosks (1.993 units), los (2099 units), and the expanse (952 units) in 15 sub-districts in Tulang Bawang District.

A new basis sector after the expansion were transport and communications sector. Locally, the growth of this sector was relatively slow (DS negative). However, regional support to this sector was positive/fast (PS positive). Sub-sector that give substantial contribution was the transportation sub-sector, especially road transport, in addition to communication sub-sector. The transport sector was supported by the highway infrastructure where 66 percent of the length of district road of 778 stay in good status. There were transportation facilities such as 22 buses and 136 trucks. For the communication facilities, available as much as 1.714 installed capacity for telecommunication with 965 customers [29]. So, after the expansion, there were four sectors which became the basis in the District of Tulang Bawang from before the expansion that there were only 3 basis sector.

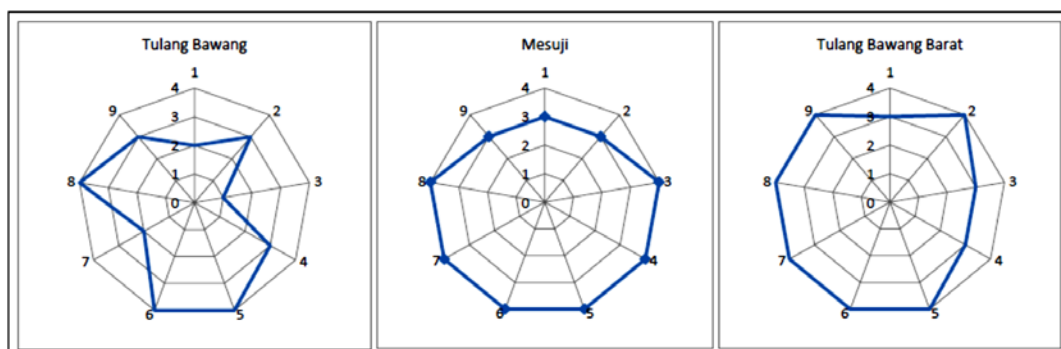
In addition to the four sectors which became the basis in Tulang Bawang District after the expansion, there was a sector that was not the basis but had a positive local growth such as mining and quarrying sector, electricity sector, gas and drinking water, and the services sector. These sectors likely to grow and able to give contribute to PDRB. The base sector analysis results and competitiveness in more detail can be seen in Table 4.

In the District of Tulang Bawang, the primary sector (agriculture) was also a basis sector in addition there were the secondary sector (industry) and tertiary sector (services), namely agriculture, manufacturing, trade, hotels, restaurants, transportation, and telecommunications sector. Structural change exerts a far-reaching influence on the economic performance of nations. It takes place at various levels of aggregation, leading to a characteristic pattern of change among the three main sectors of the private economy as well as changes of the industry composition within these sectors and among firms within the individual industries [30]. The great absorption of labor was in the agricultural sector followed by transportation and communications sectors which reached a total of 63 percent and 19 percent with the labor LQ of 1,21 and 1,12 (see Figure 2 and Table 2). As a main district, Tulang Bawang District within a decade (2004-2013) had a contribution trend of agricultural sector which increased from 42,74 percent to 49,48 percent (although it had declined when the expansion area of Mesuji District and West Tulang Bawang between the year 2008-2009). Food crop sub-sector, plantation, and fishery sub-sector were the largest sub-sector contributing to PDRB. The main commodity of food crops sub-sector was cassava. For the plantation sub-sectors, the main commodity were the oil palm plantations, sugar cane, and rubber. For the fisheries sub-sector, the contribution came from the fishing on the eastern sea coast and open waters. In the manufacturing sector, there were 22 large and medium industries and 4.878 small industries and

households handicraft that contribute in Tulang Bawang District.

To see the position of the sector are in the category of developed or advanced or underdeveloped and have a rapid or slow growth, Klassen Typology used to analyze it. The industrial sector and the manufacture sector were an advanced sector and growing rapidly in the District of Tulang Bawang (Figure 4). The development of the manufacturing sector requires a qualified and skilled human resources, good regulation, infrastructure support, as well as a clear product market. Associated with human resources, the District of Tulang Bawang need to improve the quality of human resources as its IPM/HDI value (Human Development Index) amounted to 71,86, still under the Lampung Province that is amounted to 72,87. Road infrastructure that connected between the regions was very important for the smoothness of marketing. Required the cooperation of local government district, provincial and central related to connecting roads in the district (123 km of provincial roads, 60 km of country roads) and between the regions. The distance capital of the district to the provincial capital along the 119 km was also a factor that must be considered in the development of this sector.

The agricultural sector was still the basis sector (LQ = 1.39) in the District of Mesuji as the main district, Tulang Bawang with positive growth. Food crops and plantations were a sub-sector that dominated to the contribution of the agricultural sector. The main food crops besides rice was cassava which produced in the area of 97 percent of the total land area for food crops was 32.618 ha. While in the sub-sector of plantation, the oil palm plantation and rubber plantations dominate the sub-sector. As much as 45 percent of the plantation area devoted to oil palm plantations and 54 percent for rubber from the total plantation crops area of 45.351 ha. The total area of Mesuji District was 218.400 ha. The agricultural sector as a basis also supported by the potential labor base. With the sector's contribution to PDRB by 46 percent, this sector was able to absorb as much as 78 percent of the labor . Other basis sector in the District of Mesuji after the expansion was the manufacturing sector. The local growth in this sector tend to slow down. However, it was still possible to be developed, considering this sector was also the basis for the labor sector. There were 4 industrial units of medium/ large and 749 small industrial units in the District of Mesuji that was contributing to the PDRB in the sector of manufacturing industry. Mining and quarrying, and the services sector were the non-basis sector which enable to be a potential sector because it has positive growth.



**Figure 4:** The radar diagram of Klassen Typology sector in the District of Tulang Bawang, Mesuji, and West Tulang Bawang in the year of 2009-2013

The District of West Tulang Bawang expanded from Tulang Bawang District with an area of 1.201 km<sup>2</sup>, smaller than Mesuji District (KP) and the main district. However, it has a population density (216 inhabitants/km<sup>2</sup>) more dense than Mesuji District (88 km<sup>2</sup>). In addition, it had two basis sectors, namely agriculture and manufacturing sector with rapid growth. Unlike Mesuji District and Tulang Bawang District base that is supported by the labor sector in the agricultural sector, in West Tulang Bawang District, the labor only made the manufacturing industry as a basis sector. The dominant sub-sector was the food crop sub-sector with the main commodity was cassava and the plantation sub-sector with rubbers and palm oil plantation as a main commodity. The manufacturing sector supported by the presence of eight unit of large medium industries and 1.428 units of small industries.

Thus, two basis sectors in the District of Mesuji and West Tulang Bawang equal to the basis sector in the District of Tulang Bawang both before and after the expansion. This likely occurred because the expanded region had the characteristics of a potential economic sectors that relatively the same as its main district. Including the area after expansion quite sufficient for the development of sectors such as agriculture sector. If the sector is managed and developed properly, it expected to be able to increase the income of the people and suppress the poverty. According to Gyimah-Brempong [31], the high growth of the agricultural sector is able to increase the relative income and lower income inequality. The strategy is to provide price incentives, improvement of rural road infrastructure, and availability of inputs. However, because there are still many poor people in the agricultural sector, the strategy for development is not enough just to lower income inequality, but should also reduce the level of poverty.

Based on the analysis of Klassen Typology, in the District of Mesuji and West Tulang Bawang, the sectors of agriculture, mining, quarrying, services, manufacturing industry, gas, electricity, and drinking water sector were in the category of potential or can still grow rapidly (Figure 4). As the DOB to develop the potential sectors, Mesuji District and West Tulang Bawang need to manage the area properly and efficiently. The distance of the center of the district capital and the capital of the province was quite far of 204 km and 140 km. The road infrastructure in the districts need to improve because only about 40-45 percent of the length of district roads in a good-average condition. The IPM in Mesuji District (68,79) and West Tulang Bawang (70,38) still below the IPM in main district and Lampung Provinces, so that the improvements in the quality and service of education, health, and economic improvement were very important to note. If management can be done well and efficiently, then the development of potential sectors such as agriculture and industrial sector with the commodities such as cassava, rubber, and palm oil could give a major contribution to the area. Especially with the support of large industry, medium, average, and small industry in the industrial sector. In general, according to Klassen Typology, this considered to the expansion district that still quite a lot of sectors in the category of relatively underdeveloped. According to Nayak and Mishra [32], some aspects due to structural changes in Meghalaya include the decline of employment in the agricultural sector and converted with an appropriate increase in the tertiary sector, especially in the suburbs. Manufacturing and mining sectors are gradually becoming more prominent. Per capita income increases. Improving infrastructure is not balanced by the number of vehicles on the road that increased rapidly.

#### 4. Conclusion

There are the differences in the economic structure after the expansion in the District of Pringsewu as an expansion district compared with its main district, Tanggamus. The dominant sector in the District of Tanggamus is the primary sector/agriculture while Pringsewu District dominant in the tertiary sector/services. In the District of Mesuji and West Tulang Bawang, after the expansion, the economic structure is relatively the same as its main district, Tulang Bawang which is dominant in the primary sector/agriculture. The potential economic sectors in the main district, Tanggamus (KI<sub>1</sub>) are mining and quarrying, construction, agriculture, trade, hotels and restaurants, meanwhile in Tulang Bawang (KI<sub>2</sub>) are the manufacturing industry, agriculture, trade, hotels and restaurants, transport, and communications. For the district of expansion in Pringsewu (KP<sub>1.1</sub>), the potential economic sector are the services sector, electricity, gas and drinking water, construction, trade, hotels and restaurants. Agriculture sector and manufacturing industry are the potential economic sector in Mesuji (KP<sub>2.1</sub>) and West Tulang Bawang (KP<sub>2.2</sub>). For the development of a potential economic sectors need to consider the position of each advanced sector with high growth as a priority, the local and regional potential of the sector, the quality of human resources, the distance location, road infrastructure, and other supporting facilities and infrastructure.

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