

The Regional Development Based on Leading Sectors in Kuantan Singingi Regency, Riau Province

Mailendra¹, Puji Astuti², Mardianto³, Rona Muliana⁴

Master of Regional and Urban Development, Diponegoro University, Semarang,
Indonesia¹

Urban and Regional Planning Departement, Universitas Islam Riau,Pekanbaru,
Indonesia^{2,3,4}

*Corresponding Email : mailendra06@gmail.com, pujiastutiafrinal@eng.uir.ac.id

Abstract. Decentralization policy conducted by the government through regional autonomy is an effort to restructure the nation life better. But in fact there are still many areas that have not been able to utilize of the policy as well as possible. Kuantan Singingi Regency is one of regency in Riau Province that experienced a decline in income, followed by the reduction of prices of some commodities in the featured sector. By seeing this case, need for a strategy in facing that condition. The purpose of this study is to formulate a strategy for regional development in order to improve public welfare of Kuantan Singingi Regency. The study approach are identify the leading sectors, identify the typology of leading sector, identify competitive ability of leading sectors and formulate a regional development strategy based on leading sector in Kuantan Singingi Regency. The analysis method used location questions, dynamic location questions, shift share and typology sectors, and SWOT Analysis to formulate the strategy. The results of the research is identified that there are 9 leading sectors of the 17 sectors, namely (1)Agriculture Sector, Forestry and Fisheries, (2) Manufacturing Industry, (3)Water Supplying Sector, Waste Management, Waste and Recycling, (4) Construction Sector, (5) Real Estate Sector, (6) Administration Sector, Defense and Social Security Mandatory, (7) Education Service Sector, (8) Health Service and Social Work Sectors, (9) Other Services Sector. Based on the typology of the 9 sectors, 8 sectors are prospective sectors and 1 sector is not prospective (construction sector). Furthermore, competitiveness ability of the leading sectors are classified in the good competitiveness, because of the value growth of the nations' territory ($PPW > 0$). Then the result of the formulation of the strategy based on components of the core region the resulting strategy is to optimize local resources exist to improve the quality of labors, transport and communication components, products of the leading sector, and utilize government's abilities, technologies and the existing markets.

1. Introduction

In line with the implementation of regional autonomy, the regional government has broader authority in determining the best development policies and programs for improving the welfare of the community and the progress of each region. The background of demography, geography, availability of infrastructure and culture that are not the same, and the capacity of different resources, has consequences for the diversity of regional performance in the implementation and achievement of development goals. Further performance differences will lead to development imbalances between regions, increasing regional demands, and possible disintegration of the nation (Novrilasari, 2008).

Given the limitations/scarcity and inequality of resources, every potential resource available must be utilized as well as possible. This implies that every resource must be utilized as efficiently and effectively as possible (Rustiadi et al, 2011). According to Tarigan (2010), regional development planning cannot be separated from what is currently in the region. Actors creators of regional activities are all communities in the region and outsiders who want to carry out activities in the region. In the development of the regions in general are supported by sectors which are divided into several sectors

as outlined in the Gross Domestic Regional Product (GDRP) so that it can be seen which sectors provide the most input, thus it can be known which one is the leading sector.

Leading sectors are sectors with criteria for having a high growth rate, relatively large employment absorption, having high linkages between sectors both in the future and backward and in creating high added value (Tarigan, 2005). In addition, the leading sectors also generally come from superior sub-sectors or superior commodities from an area or region under study. In the GDRP, sectors are divided into primary, secondary and tertiary sectors. The primary sector consists of the agriculture, forestry and fisheries sectors; and the mining and quarrying sector. Secondary sectors include the building sector, processing industry, electricity, gas and clean water. Whereas the sectors classified as tertiary sectors are those whose production is not physical, such as the services sector; hotel and restaurant trade sector; transportation and communication sector; finance and leasing sector; and company services.

Riau Province in the structure of its GDRP, there are several sectors that have a large contribution as the constituent sector. These sectors are mining and quarrying sector: processing industry sector; and agriculture, forestry and fisheries sector which are classified as primary sectors. These sectors contributed more than 20% in 2010. But along with the development there were sectors that experienced a decline in income. The agriculture, forestry and fisheries sector is one of them, in 2010 this sector contributed 23.46% and continued to decline until 2013 to 19.00%. This decline in income affected the same sector in the

One of the districts affected by this influence is Kuantan Singingi Regency. In Kuantan Singingi Regency, the agriculture, livestock, forestry and fisheries sectors are the sectors that provide the largest contribution, which is almost 50% of GDRP is the contribution of the sector. However, each year this sector has decreased in its development, in 2010 the percentage of the contribution of this sector was 49.44% and subsequently decreased to 49.36% in 2011 and declined again to 47.78% in 2012 and in the year 2013 declined to 47.54%. The largest contribution from this sector was from the plantation sub-sector, which averaged 72% in those years. The decline in income was also followed by a decline in the prices of several commodities in the plantation sub-sector such as rubber and palm oil, the price of rubber at the level of farmers in September 2015 at Rp. 5,770 and the price of palm oil from the farmer level is Rp. 775, the prices of these commodities are very far lower compared to prices in the past year (Plantation Services, 2015). This certainly led to increasingly difficult life of Kuantan Singingi Regency because the majority of the population of Kuantan Singingi Regency worked in the agricultural sector, especially in the plantation sub-sector.

Seeing this condition, there needs to be a research on how the strategy that can be done to develop the area of Kuantan Singingi Regency which utilizes the potential of the region in the leading sectors, so that in the future Kuantan Singingi regency can further optimize its superior sector. Thus it is expected to improve the welfare of the population of Kuantan Singingi Regency.

2. Methodology

The research approach used is quantitative and qualitative approaches. This quantitative approach is used in the analysis of leading sectors, as a basis for determining the leading sector typology and analysis of competitiveness. Qualitative research is used to formulate regional development strategies. The population in this study is the stakeholders related to the development of the region and the leading sectors in Kuantan Singingi Regency namely the regulator and the actors engaged in the field. Determination of the sample in this study is purposive sampling. Consideration in determining the sample is seen from the relationship or interest of the sample or respondent to the research. Respondents selected were respondents who were experts in their fields; Regent, Deputy Regent, Regional Secretary, Head of Service, Experts and Community Leaders

2.1. LQ (*Location Question*) Method

To find out the potential of economic activities which are indicative of the base and non-base sectors, the location question (LQ) method can be used, which is a relative comparison between the ability of the same sector in a wider area. The assumptions in LQ are that there is little variation in geographic expenditure patterns and uniform labor productivity and each industry produces uniform products or services (Rustiadi et al, 2011).

$$LQ_{ij} = \frac{S_{ij}/N_{ij}}{S_i/N_i}$$

Remarks :

- LQ_{ij} = *Location Quotient Index* sector i in district j
- S_{ij} = GDRP sector i in district/city j
- S_i = GDRP sector i in Province (reference)
- N_{ij} = total GDRP in the district/city j
- N_i = total GDRP in Province (reference)

The interpretation of LQ results is as follows:

1. $LQ > 1$, indicates the sector/commodity i is a potential/leading sector in district j, meaning that the sector has an export role in the region.
2. $LQ = 1$, it means that the role of the sector/commodity i in the district j is equivalent to the role of the sector in the province (reference).
3. $LQ < 1$, indicates that the sector/commodity i is not a potential sector in regency j, meaning that the sector does not have the role of the export sector in the region, instead it will bring imports from other regions.

2.2. DLQ (Dynamic Location Quotient) Method

LQ is divided into two types, namely SLQ (Static Location Quotient) and DLQ (Dynamic Location Quotient). DLQ actually has the same principle as SLQ, only to introduce the growth rate is used the assumption that sectoral value added and GDRP has an average growth rate individually during the period between years (0) to year (t). As for the DLQ formula is as the following:

$$DLQ_{IF} = \frac{(1 + g_{ij})/(1 + g_j)}{(1 + G_i)/(1 + G)}$$

Remarks :

- DLQ = Index of *Dynamic Location Quotient*
- g_{ij} = Average growth rate of sector or subsector i in the regency
- g_j = Average growth rate in the regency
- G_i = Average growth rate of the sector or subsector i in the province
- G = Average growth rate in the province
- t = Period of analysis

The interpretation of DLQ result:

1. $DLQ > 1$: The proportion of the sector's growth rate (i) to the regional GDRP growth rate (j) is faster than the growth rate of the sector in the reference area GDRP.
2. $DLQ < 1$: sector in the GDRP of The proportion of the sector growth rate (i) to the regional GDRP growth rate (j) is slower than the growth rate of the the reference area.
3. $DLQ = 1$: Sector growth rate (i) to regional GDRP growth rate (j) is proportional to the growth rate of the sector in the reference area GDRP.

2.3. Identifying Leading Sectors Typologies

According to Muta'ali (2015) a combined analysis of LQ (location quotient) and DLQ (dynamic location quotient) is intended to determine the occurrence of shifts and repositioning and to assess the prospect of the existence of the regional economic sector in the future.

Table 1. Sector Typology Based on LQ and DLQ Values

		DLQ > 1	DLQ < 1
LQ > 1	Type I Base Sector, Prospective	Type III Base Sector, Unprospective	
LQ < 1	Type II Non-Base Sector, Prospective	Type IV Non-Base Sector, Unprospective	

Source: Muta'ali, 2015

a. Identifying Leading Sectors in Competitiveness Capabilities

The growth of an area will be different from other regions due to differences in the structure of the industry and the economic sector. Shift share analysis is used to analyze changes in various indicators of economic activities such as production and employment opportunities at two time points in an area.

$$PPW = ri \left(\frac{ri'}{ri} - \frac{nt'}{nt} \right)$$

$$PP = ri \left(\frac{nt'}{nt} - \frac{Nt'}{Nt} \right)$$

Remarks :

ri = regional sector i production in the early years

ri' = final year regional sector i production

nt = national sector i production in the first year

nt' = final year national sector i production

Nt = total national production in the initial year

Nt' = total national production in the final year

The interpretation of Shift Share Analysis :

1. PP > 0 = sector i in region j rapid growth
2. PP < 0 = sector i in region j slow growth
3. PPW > 0 = region j has good competitiveness in sector i compared to other regions or region j has a comparative advantage for sector i compared to other regions.
4. PPW < 0 = sector i in the j region cannot compete well when compared to other regions
5. PB = net shift = PP + PPW
6. PB ≥ 0 = sector i growth in j region includes progressive groups (advanced)
7. PB ≤ 0 = sector growth in region j is slow

b. Formulate Strategy of Regional Development Based on Leading Sector

SWOT analysis involves systematically identifying various factors to formulate management strategies. This analysis is based on logic that maximizes strengths and opportunities, but simultaneously can minimize weaknesses and threats. Technically, SWOT analysis can be done with two methods, Quantitative and Qualitative Models (Muta'ali, 2015). In the research related to the development based on leading sectors in Kuantan Singingi Regency, a Qualitative SWOT analysis was used.

3. Results and Discussion

3.1. Location Question (LQ) Analysis

The data used are Kuantan Singingi Regency's GDRP and Riau Province's GDRP in 2014 at current prices. The results of the LQ analysis in identifying the leading sectors of Kuantan Singingi Regency can be seen in table 2:

Table 2. LQ Value Based on GDRP Based on the Current Price of 2014

Category	Business Field	GDRP based on current price		LQ
		Kuantan Singingi Regency	Riau Province	
A	Agriculture, Forestry and Fisheries	11,557,111.00	133,769,943.60	2.45
B	Mining and Excavation	2,381,269.10	268,570,836.20	0.25
C	Processing Industry	6,030,422.30	141,859,675.90	1.20
D	Electricity and Gas Procurement	5,302.10	258,778.00	0.58
E	Water Supply, Waste Management, Waste and Recycling	5,038.10	65,787.40	2.17
F	Construction	1,731,062.80	45,437,971.40	1.08
G	Wholesale and Retail Trade; Car and Motorcycle Repair	836,345.00	53,063,664.90	0.45
H	Transportation and Warehousing	102,567.80	4,457,955.80	0.65
I	Provision of Accommodation and Eating Drinks	46,744.40	3,273,305.50	0.40
J	Information and Communication	83,394.10	3,539,376.80	0.67
K	Financial Services and Insurance	157,707.70	5,442,511.10	0.82
L	Real Estate	165,053.60	4,658,529.30	1.00
MN	Company Services	224.70	28,439.40	0.22
O	Government Administration, Defense and Mandatory Social Security	615,225.90	9,246,790.60	1.89
P	Education Services	130,186.10	2,755,174.80	1.34
Q	Health Services and Social Activities	38,790.20	955,160.40	1.15
RSTU	Other Services	96,274.10	2,308,276.90	1.18
Total		23,982,719.00	679,692,178.00	-

Source :Result of Analysis, 2015

From these sectors can be seen the most leading sectors are the sectors of Agriculture, Forestry and Fisheries with a LQ of 2.45 and the leading sector with the lowest LQ is real estate sector with 1.00. Its means that sectors other than the sector potential also has an export role in Kuantan Singingi Regency.

a. Dynamic Location Question (DLQ) Analysis

In this DLQ analysis, the 2010-2014 GDRP growth rate data is used. The results of the DLQ analysis can be seen in table 4:

Table 3. DLQ Value Based on Average GDRP Growth Rate on the Basis of the Valid Price of 2010-2014

Category	Business Field	Average GDRP Growth Rate on the Basis of the Valid Price		DLQ
		Kuantan Singingi Regency	Riau Province	
A	Agriculture, Forestry and Fisheries	8.93	10.12	1.39
B	Mining and Excavation	10.60	21.86	0.76
C	Processing Industry	10.51	11.02	1.50
D	Electricity and Gas Procurement	7.57	11.93	1.00
E	Water Supply, Waste Management, Waste and Recycling	4.68	2.86	2.58
F	Construction	9.34	15.75	0.93
G	Wholesale and Retail Trade; Car and Motorcycle Repair	10.49	16.43	1.01
H	Transportation and Warehousing	15.20	14.38	1.67
I	Provision of Accommodation and Eating Drinks	18.06	22.88	1.25

J	Information and Communication	6.29	10.93	0.91
K	Financial Services and Insurance	6.88	16.48	0.66
L	Real Estate	12.49	12.96	1.52
MN	Company Services	13.11	18.05	1.15
O	Government Administration, Defense and Mandatory Social Security	10.33	9.13	1.79
P	Education Services	10.10	12.56	1.27
Q	Health Services and Social Activities	14.10	15.64	1.42
RSTU	Other Services	13.25	16.44	1.27
Total		9.61	15.16	

Source: Result of Analysis, 2015

The results of DLQ analysis show that in Kuantan Singingi Regency there are 12 leading sectors of 17 existing business fields in the GDRP. This result is more than the results of the LQ analysis, this shows that in the period of 2010 to 2014 there was an increase and decrease in the rate of income growth in the GDRP of Kuantan Singingi Regency. So that in the development of the Kuantan Singingi Regency, data will be used based on LQ analysis. While DLQ analysis is used to see the superiority of the leading sector by using a combined analysis of LQ and DLQ (Sector Typology Analysis)

b. Identifying the Leading Sector Typology in Kuantan Singingi Regency

Regional development based on the leading sectors must pay attention to the typology of the leading sectors, because in the development of the region the aim is to make a region better than before so it is necessary to know whether the leading sector is effective or not. If it is effective, it is feasible to serve as the basis for regional development, and if it is not effective, the strategy development will be directed so that the rate of growth increases and so that in the coming years it is expected to become a sector that is effective. In this sector typology analysis, data from LQ and DLQ analysis are used.

Table 4. Index of LQ and DLQ According to Business Field

Category	Business Field	LQ	DLQ
A	Agriculture, Forestry and Fisheries	2.45	1.39
B	Mining and Excavation	0.25	0.76
C	Processing Industry	1.20	1.50
D	Electricity and Gas Procurement	0.58	1.00
E	Water Supply, Waste Management, Waste and Recycling	2.17	2.58
F	Construction	1.08	0.93
G	Wholesale and Retail Trade; Car and Motorcycle Repair	0.45	1.01
H	Transportation and Warehousing	0.65	1.67
I	Provision of Accommodation and Eating Drinks	0.40	1.25
J	Information and Communication	0.67	0.91
K	Financial Services and Insurance	0.82	0.66
L	Real Estate	1.00	1.52
M,N	Company Services	0.22	1.15
O	Government Administration, Defense and Mandatory Social Security	1.89	1.79
P	Education Services	1.34	1.27
Q	Health Services and Social Activities	1.15	1.42
R,S,T,U	Other Services	1.18	1.27

Source: Result of Analysis, 2015

Based on the table 4, sectors will be divided into 4 typologies based on the LQ and DLQ. The results of the sector typology analysis can be seen in the table 5 :

Table 5. Typology of Sectors

	DLQ > 1	DLQ < 1
LQ > 1	Type I Leading Sectors, Prospective <ul style="list-style-type: none"> • Agriculture, Forestry and Fisheries • Processing Industry • Water Supply, Waste Management, Waste and Recycling • Real Estate • Gouvernement Administration, Defense and Mandatory Social Security • Education Services • Health Services and Social Activities • Other Services Type II Non Leading Sectors, Prospective <ul style="list-style-type: none"> • Electricity and Gas Procurement • Wholesale and Retail Trade; Car and Motorcycle Repair • Transportation and Warehousing • Provision of Accommodation and Eating Drinks • Company Services 	Type III Leading Sectors, Unprospective <ul style="list-style-type: none"> • Construction
LQ < 1		Type IV Non Leading Sectors, Unprospective <ul style="list-style-type: none"> • Mining and Excavation • Information and Communication • Financial Services and Insurance
<i>Source: Result of Analysis, 2015</i>		

c. Identifying of Leading Sector Competitiveness

To determine the competitiveness of leading sectors, the Shift Share analysis is used. Furthermore, the data used in this analysis are the GDRP of Kuantan Singingi Regency and Riau Province. The results of the analysis can be seen in the following table 6 :

Table 6. Result of Shift Share Analysis Based on GDRP Kuantan Singingi Regency in year 2010 dan 2014

Category	Business Field	PPW	PP	PB
A	Agriculture, Forestry and Fisheries	0.725579226	0.109717044	0.83529627
B	Mining and Excavation	1.023178944	-0.099737347	0.923441597
C	Processing Industry	0.830949412	0.087643562	0.918592974
D	Electricity and Gas Procurement	0.63581837	0.096685574	0.732503944
	Water Supply, Waste Management, Waste and Recycling	0.303431488	0.324218875	0.627650363
E				
F	Construction	0.870144578	-0.013092873	0.857051705
	Wholesale and Retail Trade; Car and Motorcycle Repair	0.938601752	-0.021206494	0.917395258
G				
H	Transportation and Warehousing	1.173982542	0.013343923	1.187326465
	Provision of Accommodation and Eating Drinks	1.499257853	-0.128137025	1.371120828
I				
J	Information and Communication	0.61097229	0.09062963	0.70160192
K	Financial Services and Insurance	0.576050119	-0.026405266	0.549644853
L	Real Estate	0.986195235	0.043040102	1.029235337
M,N	Company Services	1.12015194	-0.055287032	1.064864908
O	Government Administration, Defense and Mandatory Social Security	0.766415248	0.13530343	0.901718678
P	Education Services	0.842577103	0.055064756	0.897641859
Q	Health Services and Social Activities	1.131709293	-0.011543175	1.120166118
R,S,T,U	Other Services	1.086331784	-0.024861324	1.061470459

Source: Result of Analysis, 2015

Based on table 6 above, it can be seen that the sector with rapid growth is the Water Supply, Waste Management, and Recycling Sector with proportional growth value (PP) 0.324218875 and the slowest growth sector, namely the Provision of Accommodation and Drinking Sector with PP value -

0.128137025. Furthermore, to see the competitiveness of leading sectors can be seen in the value of regional share growth (PPW). The competitiveness of the leading sectors of Kuantan Singingi Regency can be seen in table 7 :

Table 7. Competitiveness of Leading Sectors in Kuantan Singingi Regency in year 2010 dan 2014

Category	Lapangan Usaha	PPW
A	Agriculture, Forestry and Fisheries	0.725579226
C	Processing Industry	0.830949412
E	Water Supply, Waste Management, Waste and Recycling	0.303431488
F	Construction	0.870144578
L	Real Estate	0.986195235
O	Governement Administration, Defense and Mandatory Social Security	0.766415248
P	Education Services	0.842577103
Q	Health Services and Social Activities	1.131709293
RSTU	Other Services	1.086331784

Source: Result of Analysis, 2015

In table 7 it can be seen that the competitiveness of all leading sectors is classified as having good competitiveness, this is because the PPW value of each sector is > 0 . So that in the development of the region in the future Kuantan Singingi Regency will be more based on *leading sectors*.

d. Formulate Strategy of Regional Development Based on Leading Sector

The analytical tool used in formulating strategy of regional development based on leading sectors in Kuantan Singingi Regency is a SWOT analysis of qualitative methods.

Table 8. SWOT Matrix of Regional Development Strategy Based on Leading Sectors In Kuantan Singingi Regency

	Internal Factors	STRENGTH (S)	WEAKNESS (W)	
		OPPORTUNITY (O)	STRATEGY S-O	STRATEGY W-O
External Factors		<ul style="list-style-type: none"> 1. There is sufficient local resources are 9 leading sectors in Kuantan Singingi Regency with good competitiveness, and 8 of them are prospective. 2. Market availability from each of the leading sector products 3. The large number of workers, especially the plantation sub-sector in the agriculture, forestry and fisheries sectors. 4. The interest of investors from various regions, both local and foreign, who invest in the production of leading sectors. 5. Government support in the fields of leading sectors, both in the form of capital and guidance and supervision. 6. Availability of a good transportation network and an appropriate communication network for the continuity of leading sectors. 7. Appropriate use of technology in leading sectors. 	<ul style="list-style-type: none"> 1. The existence of a leading sector that is not prospective, namely the construction sector and low productivity from leading sectors. 2. There is not even market distribution for superior sector products in each sub-district. 3. The presence of labor with a low educational classification. 4. An investment climate that tends to be unstable. 5. Lack of data related to leading sectors, especially spatial data such as land use. 6. There are still transportation and communication networks with inadequate conditions. 7. The technology that is used generally only produces goods in the leading sectors into semi-finished goods such as in the agricultural sector. 	

- | | | |
|---|---|--|
| <ol style="list-style-type: none"> 3. Training of workers in the fields of leading sectors. 4. Partnership between investors and stakeholders related to the leading sectors. 5. Regulations related to the development of leading sector-based regions. 6. Equitable development of transportation network infrastructure and communication networks. 7. Utilization of technology in upstream and downstream industries in leading sectors | <ol style="list-style-type: none"> 3. Maximizing the function of the number of local workers available for training in the leading sectors. (S3, O3) 4. Increasing investor interest by building partnerships between stakeholders related to investors in leading sectors. (S4, O4) 5. Guidance and supervision by creating regulations related to the development of regions based on leading sectors. (S5, O5) 6. Improve the development of transportation and communication infrastructure to create equitable infrastructure development. (S6, O6) 7. Optimizing the role of appropriate technology so that it can utilize the development of upstream and downstream industries in the sectors of leading sectors. (S7, O7) | <ol style="list-style-type: none"> promoting the products of other leading sectors. (W2, O2) 3. Improve the quality of education and the development of skills training institutions for workers in the leading sectors. (W3, O3) 4. Minimizing possible losses due to an unstable investment climate by building partnerships between investors and related stakeholders. (W4, O4) 5. Increasing the availability of more complete data related to leading sectors and developing clearer regulations related to the development of leading sector-based regions. (W5, O5) 6. Improving transportation and communication network infrastructure for equitable development. (W6, O6) 7. Utilizing technology in the upstream and downstream industries in leading sectors to create products into finished goods. (W7, O7) |
|---|---|--|

TREATHS (T)

1. Import dependence of several superior sector products.
2. Competition on the same product at the level of global marketing.
3. Increased unemployment of workers due to the excessive amount of labor
4. Competition between local investors and foreign investors
5. Regulation violations due to weak enforcement and the existence of regulations that are still unclear regarding leading sectors, making the government difficult to take action.
6. Gaps in the development of transportation and communication infrastructure between sub-districts that are on the primary route with secondary and tertiary
7. Decreasing environmental quality due to activities that use environmentally friendly technology in the production of leading sectors.

STRATEGY S-T

1. Increase the production of leading sectors in reducing imported products in the sectors of leading sectors. (S1, T1)
2. Improving product quality leading sectors in the face of competition in the global market. (S1, S2, T2)
3. Improving the quality of local workforce and expanding employment in leading sectors in overcoming unemployment. (S3, T3)
4. Increasing the interest and role of local investors but still not ignoring foreign investors, by providing incentives and disincentives to invest in leading sectors. (S4, T4)
5. Increasing support for both capital and guidance and supervision by socializing existing regulations related to the development of leading sectors, so that violations can be minimized. (S5, T5)
6. Increasing the development of transportation and communication infrastructure to overcome infrastructure development gaps. (S6, T6)
7. Reducing the use of technologies that damage the environment and replace with more environmentally friendly technologies. (S7, T7)

STRATEGY W-T

1. Increase the income of leading sectors that are not prospective by reducing imported products. (W1, T1)
2. Formulate regulations related to the development of leading sector-based regions and the provision of data related to leading sectors to reduce violations. (W5, T5)
3. Improving the condition of transportation and communication networks in sub-districts that need to address the gap in transportation and communication infrastructure between sub-districts. (W6, T6)
4. Optimizing semi-finished industries by improving the quality of product quality and starting to develop finished goods products, but still prioritizing environmentally friendly technologies. (W7, T7)

Source: *Result of Analysis, 2015*

4. Conclusion

Based on the results of the analysis and discussion, some conclusions can be drawn:

- a. Of the 17 existing business/sector fields in Kuantan Singingi Regency, there are 9 sectors which are the leading sectors, including the categories (A) Sector of Agriculture, Forestry and Fisheries, (C) Processing Industry Sector, (E) Water Supply Sector, Waste Management , Waste and Recycling, (F) Construction Sector, (L) Real Estate Sector, (O) Government Administration, Defense and Mandatory Social Security Sector, (P) Education Services Sector, (Q) Health Services Sector and Social Activities, (R, S, T, U) Other Services Sector.
- b. Based on the typology of the leading sectors, one of them is the leading sector of the type that is not prospective or classified as type III is construction sector, while the remaining 8 leading sectors are classified as type I, namely the leading prospective sector.
- c. The leading sectors are classified as leading sectors with good competitiveness, this can be seen from the results of the shift share analysis that produces $PPW > 0$.
- d. The formulation of strategies based on regional components is optimizing existing local resources by improving the quality of labor, transportation and communication components, leading sector products and utilizing existing government capabilities, technology and markets.

5. Acknowledgements

This work is partially supported by Urban and Regional Planning Departement, Faculty of Engineering, Islamic University of Riau.

References

- [1] Abdillah, Firman, 2015. *Analisis Peranan Sub Sektor Unggulan pada Sektor Basis terhadap Pendapatan Wilayah di Kabupaten Siak*. Pekanbaru: UIR.
- [2]. Adisasmita, Rahardjo, 2008. *Konsep dan teori Pengembangan Wilayah*. Yogyakarta: Graha Ilmu.
- [3]. Adisasmita, Sakti Adji, 2011. *Perencanaan Transportasi dan Pengembangan Wilayah*, Edisi1 Cetakan ke-1. Yogyakarta: Graha Ilmu.
- [4]. Alkadri, 2001. *Tiga Pilar Pengembangan Wilayah: Sumberdaya Alam, Sumberdaya Manusia dan Teknologi*. Jakarta: Pusat Pengkajian Kebijakan Teknologi Pengembangan Wilayah BPPT.
- [5]. Arikunto, Suharsimi. 2006. *Prosedur Penelitian, Suatu Pendekatan Praktek* , Edisi Revisi VI. Jakarta : Rineka Cipta.
- [6]. Badan Pusat Statistik Propinsi Riau. 2014. *PDRB Provinsi Riau Menurut Lapangan Usaha Tahun 2009-2013*. Pekanbaru: Badan Pusat Statistik Propinsi Riau. Riau.
- [7]. Badan Perencanaan Pembangunan Daerah, 2010. *Draft Rencana Tata Ruang Wilayah Kabupaten Kuantan Singingi Tahun 2010-2029*, Teluk Kuantan: BAPPEDA.
- [8]. Badan Perencanaan Pembangunan Daerah, 2017. *Rencana Pembangunan Jangka Menengah Kabupaten Kuantan Singingi 2011-2016*, Teluk Kuantan: BAPPEDA.
- [9]. Badan Pusat Statistik, 2015. *PDRB Kabupaten Kuantan Singingi Menurut Lapangan Usaha Tahun 2014*. Taluk Kuantan: BPS.
- [10]. Badan Pusat Statistik, 2015. *Produk Domestik Regional Bruto Provinsi Riau Menurut Lapangan Usaha 2010/2014*. Pekanbaru: BPS.
- [11]. Muta'ali, Lutfi. 2015. *Teknik Analisis Regional*. Yogyakarta: Fakultas Geografi Universitas Gadjah Mada.
- [12]. Muhibin, Sambas Ali, 2011. *Panduan Praktis Memahami Penelitian*, Bandung: Pustaka Setia
- [13]. Mulyanto, H. R., 2008. *Prinsip-Prinsip Pengembangan Wilayah*.-Ed.1.,Cet 1.-Yogyakarta : Graha Ilmu
- [14]. Nugroho, I. dan Dahuri, R., 2004: *Pembangunan Wilayah: Perspektif Ekonomi, Sosial dan Lingkungan*. Jakarta: Penerbit Pustaka LP3ES Indonesia.
- [15]. Nurzaman, Siti Sutriah, 2008, *Jurnal Perencanaan Wilayah dan Kota Vol.19 : Teori Basis Eksport Masa Kini di Arab Saudi*, Bandung : ITB.
- [16]. Rustiadi, Ernan dkk, 2011. *Perencanaan dan Pengembangan Wilayah*, Cetakan 2. Jakarta : Yayasan Pustaka Obor Indonesia.
- [17]. Tarigan, Robinson, 2007, *Ekonomi Regional : Teori dan Aplikasi*, Ed. Revisi, Jakarta : Bumi Aksara.