

**TANJUNGPURA INTERNATIONAL JOURNAL ON
DYNAMICS ECONOMIC, SOCIAL SCIENCES AND
AGRIBUSINESS**

<http://jurnal.untan.ac.id/>

**DETERMINATION OF LEADING PLANTATION
COMMODITIES
OGAN KOMERING ULU DISTRICT**

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Abstract: This study aims to (1) determine the superior agricultural sub-sector, (2) identify leading agricultural sub-sector potential commodities to be developed as economic drivers in Ogan Komering Ulu Regency, (3) determine the pattern and structure of growth of the leading agricultural sub-sectors and commodities in Ogan Regency Komering Ulu. The method used is a purposive method. The data used are time series data, that is, secondary data of the OKU Regency GRDP at current prices (2013-2017) and data on the area of agricultural commodity production over a period of 5 years (2014-2018). The analysis shows that the estate crops sub-sector is the leading agricultural sub-sector in OKU Regency. The main agricultural commodities of the estate crops subsector are oil palm, coconut, rubber, coffee, sugar cane and pepper. The patterns of growth in agriculture and leading commodities in the Ogan Komering Ulu Regency consist of: the plantation and forestry sub-sectors as fast-growing subsectors. While the food crops sub-sector is an advanced but depressed sub-sector, while the Livestock and Fisheries sub-sector are relatively lagging. Leading commodities in the estate crops sub-sector such as oil palm, coconut and cocoa are advanced and fast developing commodities; while rubber and coffee are included in developing commodities; for sugar cane and pepper, including commodities that are relatively left behind.

Keywords: Leading commodities, OKU agriculture, LQ & DLQ analysis

Introduction

The main problem in regional development lies in its emphasis on development policies based on the Unige Value of the region concerned (Encogenous Development) by using the potential of human resources, institutions, and physical resources locally (regions). This orientation leads us to take initiatives originating from the region in the development process to create new employment opportunities and stimulate increased economic activity (Arsyad, 2010: 374).

Economic development must be carried out simultaneously in each sector, but according to Hirschman in Todaro (2000), that this aims to (1) identify leading agricultural subsectors, (2) identify leading agricultural subsector commodities that are potential to be developed as economic drivers in Ogan Komering Regency Ulu, (3) determine the pattern and structure of growth of leading agricultural sub-sectors and commodities in Ogan Komering Ulu Regency.

Literature Review

1. Theory

Main Subsectors and Commodities Nasrimaidar (2006), Fahcrulrozi (2013), Nasution (2012), Riadi (2008), Anwar (2010), Amazihono (2009) and Auction (2009), have used the LQ method to find out superior commodities and subsectors. It identifies that the LQ method can be used to determine the economic base of a region by using provincial and district level GRDP data as used by previous researchers. While Pansuwan (2009), in his research to determine the manufacturing industry base area in Thailand using LQ Buhana analysis (2006), to developing countries (regions) economic development is not carried out simultaneously (unbalanced growth), namely by determining leading sectors, where these leading sectors will have implications for the future (forward linkages) and backward linkages. provide clarity that the prosperity and economic welfare that will be achieved in accordance with the wishes of the local community, because the community itself is better aware of which economic sectors need to be improved, developed, maintained, socio-cultural areas.

The government must use data from the Thai Ministry of Industry. Buhana (2006), Riadi (2008), Nasution (2012) and Auction (2009), also used the Klassen Typologi method in his research on the growth of sectors and sub-sectors of a region. This identifies that the Klassen Typology method can be used to determine the growth criteria of a sector and sub-sector of an area into an advanced quadrant in accordance with already. With the reason that policies in the agricultural sector are more targeted then it is necessary to know the superior subsectors and commodities of the agricultural sector. So that the subsectors and leading commodities in the agricultural sector which are farming units in accordance with their development are expected to make a real contribution to the rate of economic growth in Ogan Komering Ulu Regency to find out patterns of regional culture in and developing fast, fast developing, advancing but depressed or relative left behind.

2. Theoretical basis

The region is a general measure of performance of the macro (regional) economy which includes the creation of added value, capital accumulation, consumption levels, sectoral economic performance and the level of living costs. Macroeconomic performance indicators affect the regional economy through the following principles: (1) economic value added at least in the short term, (2) capital accumulation is absolutely necessary to improve competitiveness in the long term, (3) prosperity of a region reflects economic performance in the past, (4) competition driven by market mechanisms will improve the economic performance of a region. Leading commodity is the most profitable commodity to be cultivated or developed in an area.

Where the commodity is a mainstay commodity in the region. The development of commodities which are basic or superior commodities will provide the efficiency value of the production system reflecting productivity (Anonymous, 2013). Some leading commodity criteria, namely: 1) Feasible and financially and economically superior, 2) Has broad market potential, 3) Has high ability in creating a multiplier of value added and providing employment opportunities, 4) Having physical resources, 5) Being cultivated by the local community (mastering technology).

According to Hoover (1984) in auction (2009), it is wrong to be used to explain regional economic growth. The essence of the theory says that the growth of a region is highly dependent on the region's ability to export goods and services, the growth of several support sectors.

Methods

In this study the basic method used is descriptive method. The type of data collected is secondary time series data for a period of 5 years from 2014 to 2018. The data collected is as follows; Data on Gross Regional Domestic Product (PDRB) of OKU Regency in 20013-2017, Data on Gross Regional Domestic Product (PDRB) of South Sumatra Province in 2013-2017, data on agricultural production area of OKU Regency in 20014 - 2018, data on agricultural land area production of Sumatra Province South of the Year 20014 - 2018. Commodities that have one basis theory will determine overall regional development, while the non-base sector is only a regional consequence of development.

Analysis Method

According to Stringer (2001), it was long before Johnston to find out the leading agricultural subsectors and commodities in the Ogan Komerling Ulu Regency and Mellor in 1961 identified the contribution of the agricultural economy focusing on how agriculture could further contribute to overall growth and modernization. Agriculture with the following basic analytical methods: for economic development

$$lq = (P_{sub} / P_{st}) / (P_s / P_{tp}) \text{ or } lq = (P_{sub} / P_s) / (P_{st} / P_{tp})$$

Where :

P_{sub} = value of sub-sector GDP / area of agricultural commodities in the district area

P_{st} = value of sub-sector GDP / area of agricultural land in the district area

P_s = GRDP value of sub-sector / area of agricultural commodities in the province

P_{tp} = value of sub-sector GDP / area of agricultural land in the province

Criteria:

- $LQ > 1$ means the level of a particular subsector / commodity at the district level from the same sub-sector / commodity at the provincial level means that the subsector / commodity is a superior sub-sector / commodity in the regency and has great potential for developing the regency's economy.
- $LQ < 1$ means the level of sub-sector / certain at the district level is smaller than the same sub-sector / commodity at the provincial level meaning that the subsector is not a superior commodity and has less potential to be developed as a driver of the district economy
- $LQ = 1$ means the level of specialization of certain sub-sectors / commodities at the same regency / commodity level in the province.

Then furthermore by DLQ analysis to determine subsectors and certain superior commodities in the future, because with DLQ Analysis it can be seen whether the future of subsectors and superior commodities or not, or subsectors / commodities that were not superior but have the potential to become a superior subsector / commodity in the future . Mathematically the DLQ formula can be written as follows:

$$DLQ_{ij} = ((1+g_{lj})/(1+g_j))/((1+G_i)/(1+G))t$$

Information:

DLQ_{ij} = Dynamic Location Quotient Subsector / Agricultural commodity index in the Regency

G_{ij} = Average subsector / agricultural commodity growth rate in the Regency

G_j = average growth rate of the agricultural sector / subsector in the Regency

G_i = Average growth rate of the agricultural sector / commodity in the Province

G = average growth rate of the agriculture sector / subsector in the province

T = Analysis time period

Criteria:

$DLQ > 1$ = Subsector / commodity can still be expected for the future

$DLQ < 1$ = Subsector / commodity cannot be expected for the future to come

Furthermore, the criteria for LQ and DLQ analysis results are combined so that the repositioning of certain leading subsectors or commodities going forward with the following criteria:

- a) $LQ > 1$ and $DLQ > 1$, the sub-sector / commodity has not yet been repositioned, meaning that the subsector that is superior when the subsector / at the same level as the subsector is still superior in the same period of the province. Then proceed with the DLQ Analysis to determine the upcoming.
- b) $LQ > 1$ and $DLQ < 1$, then the sub-sector / sub-sector and commodity commodities have been repositioned and cannot be expected to be a certain superior. DLQ

analysis can be known whether in the future the subsector can survive as a superior sub-sector / commodity, or sub-sector / commodity which was not superior but has potential as a sub-sector / commodity in the future.

- c) $LQ < 1$ and $DLQ > 1$, then certain sub-sectors and commodities have experienced the repositioning of non-leading sub-sectors / commodities to be superior.
- d) $LQ < 1$ and $DLQ < 1$, the subsector / commodity has not yet been repositioned and remains a leading subsector / commodity.

Meanwhile, to find out the pattern and structure of the growth of leading agricultural subsectors and commodities in OKU Regency by using Klassen Typology analysis as follows.

Growth rate (r)	SubSector Contribution (y)	$y_b > y_p$	$y_b < y_p$
	$r_b > r_p$	Quadrant I Subsector / commodity is progressing from fast development	Kuadani II Fast growing subsector / commodity
$R_b < r_p$	Kuadani III Subsector / commodity advanced but depressed	Quadrant IV Subsector / commodity is relatively left behind	

Source: Sjafrizal, (1997)

Information:

r_b = rate of growth of the value of the GRDP subsector / agricultural commodity at the district level

r_p = The rate of growth of the provincial GRDP subsector / commodity value

y_b = Contribution of GRDP in agricultural sub-sector / commodity to agriculture sector / sub-sector at district level

y_p = Contribution of agriculture sub-sector / commodity to the agricultural sector / sub-sector the province

Where :

$$r_b = \frac{P_{ikt} - P_{iko}}{P_{iko}} \times 100\%$$

$$r_p = \frac{P_{it} - P_{io}}{P_{io}} \times 100\%$$

$$yb = \frac{Pik}{Ptk} \times 100\%$$

No	Plantation Crop Commodities	sub-district													total
		Lengkiti	Sosoh Buay Rayap	Pengandonan	Semidang Aji	Ulu Ogan	Muara Jaya	Peninjauan	Lubuk Batang	Sinar Peninjauan	Kedaton Peninjauan Raya	Baturaja Timur	Lubuk Raja	Baturaja Barat	
1	Palm oil	325	49.50	0	0	0	0	232	690	19	0	0	1	465	1781.5
2	Coconut	30	126	40	209	381	29	171	36.5	18.5	0	21	20	36	1118
3	Rubber	9818	5355	2839	4787	663	837	10669	12059	9245	0	2255	11250	2234	72011
4	Coffee	4959	4959	5104	7432	1268	1649	60	243	243	0	3	0	176	26096
5	Cocoa	10.5	63	6	0	1	0	0	0	0	0	4	0	18	102.5
6	Cane	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	Pepper	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	15142.5	10552.50	7989	12428	2313	2515	11132	13028.5	9525.5	0	2283	11271	2929	
	Total	30285	21105	15978	24856	4626	5030	22264	26057	19051	0	4566	22542	5858	202218
		0.150	0.104	0.079	0.123	0.023	0.025	0.110	0.129	0.094	0.000	0.023	0.111	0.029	1

$$yp = \frac{Pi}{Pt} \times 100\%$$

Information :

Pikt = Production value (GRDP) of subsector / agricultural commodity in regency level in year t

Piko = Production value (GRDP) of the agricultural sub-sector / commodity at the beginning of the year

Pit = Value of production (GRDP) of the agricultural sub-sector / commodity at the t-year level

Pio = Production value (GRDP) of sub-province / agricultural commodities at the beginning of the year

Pik = Production value (GRDP) of sub-province / agricultural commodities

Ptk = Production value of subsector / agriculture subsector at district level

Pi = Agriculture sector / sub-sector production value

Pt = value of agricultural sector production / subsector at the provincial level

Findings

1. Leading plantation commodities

From the LQ analysis it is known that the superior plantation subsector is the oil palm (1.19) and coconut (1.74) subsectors. While non-superior are rubber (0.86), coffee (0.17), cocoa (0.66), sugar cane and pepper (0.00). In the estate crops sub-sector commodities, namely oil palm, coconut, rubber, pepper, cocoa and sugar cane, they have superior repositioning to non-superior. Commodities of oil palm and coconut undergo repositioning to be superior in the future. Commodities of rubber, pepper, cocoa and sugar cane were repositioned and remain non-superior in the future.

Table of Prime Commodities in Plantation 2018

Analysis of Patterns and Structure of Growth of the leading plantation subsector

In the plantation sub-sector the leading commodities that will come are oil palm and coconut. Commodities which are considered to be non-superior in the future are rubber, cocoa, coffee, pepper and sugar cane.

No	Plantation Crop Commodities	Lq					Average	information
		2014	2015	2016	2017	2018		
1	Palm oil	0.00	0.00	0.00	0.00	0.00	0.00	
2	Coconut	0.00	1.74	1.59	1.75	1.69	1.36	base
3	Rubber	0.00	0.84	0.85	0.84	0.88	0.68	
4	Coffee	0.00	0.00	0.00	0.00	0.77	0.15	
5	Cocoa	0.00	0.72	0.73	0.67	1.14	0.65	
6	Cane	0.00	0.00	0.00	0.00	0.00	0.00	
7	Pepper	0.00	0.50	0.50	0.50	0.00	0.30	

Farm Average Table

SubSector Contribution (y)	yb>yp	yb<yp
Growth rate (r)		

$rb > rp$	Quadrant I Palm oil Coconut	Rubber	Quadrant II
$Rb < rp$		Coffee Cane	Quadrant IV
			Quadrant III Cocoa

From the results of the Typology Class analysis on the agriculture subsector of estate crops, it is known that the contribution of commodities and the rate of growth included in quadrant I are oil palm and coconut commodities. Where the contribution and growth rate is greater for the same commodity at the provincial level. Commodities included in quadrant II are fast growing where the excess production is rubber in the OKU Regency, but based on DLQ analysis rubber commodities are not superior. This is due to the transfer of land functions in the rubber-producing area to residential land and fast-growing commodities where commodities contribute less to the province but it has greater growth compared to the same commodities at the provincial level, namely cocoa, coffee and sugar cane. The commodity which is included in quadrant III, which is an advanced but depressed commodity, is cocoa. Growth in terms of the area of harvest commodity land in the OKU Regency which is not surplus, is relatively left behind in the future. Meanwhile, which is included in quadrant IV, namely commodities that are relatively left behind are coffee and sugar cane. Where this commodity has a large level of growth and contribution below the average.

2. Priority Commodity Determination

Determination of priority commodity is done by compiling an analysis done by describing a surplus commodity, advanced therein is a combination of the results of the analysis of LQ, DLQ and Klassen Typologi. The analysis. referring to the availability criteria (LQ), the coming availability (DLQ) of commodities which are developing fast and the results of the Manifest analysis show a future surplus.

No	Komoditas Populasi Ternak	Lq													total
		Lengkiti	Sosoh Buay Rayap	Pengandonan	Semidang Aji	Ulu Og an	Muara Jaya	Peninjau an	Lubuk Bata ng	Sinar Peninjau an	Kedaton Peninjau an Raya	Baturaja Timur	Lubuk Raja	Baturaja Barat	
1	Kelapa Sawit	0.00	0.00	0.00	0.00	0.00	0.00	7915.00	0.00	0.00	0.00	0.00	0.00	0.00	608.846
2	Kelapa	0.18	0.00	0.45	1.52	14.90	1.04	1.39	0.25	0.18	0.00	0.83	0.16	1.11	1.693
3	Karet	0.91	0.71	0.50	0.54	0.40	0.47	1.35	1.30	1.36	0.00	1.39	1.40	1.07	0.877
4	Kopi	0.00	1.82	2.48	2.32	0.43	2.54	0.02	0.07	0.10	0.00	0.01	0.00	0.23	0.770

5	Kakao	0.00	5.89	0.74	0.00	0.43	0.00	0.00	0.00	0.00	0.00	1.73	0.00	6.06	1.142
6	Tebu	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	Lada	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8															0.00
	Total	1.090	8.422	4.168	4.379	16.152	4.050	7917.753	1.625	1.637	0.000	3.952	1.562	8.477	7973.268

Conclusion

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

- From the LQ analysis it is known that the superior plantation subsector is the oil palm (1.19) and coconut (1.74) subsectors. While those that are not superior are rubber (0.86), coffee (0.17), cocoa (0.66), sugar cane and pepper (0.00). In the estate crops sub-sector commodities, namely oil palm, coconut, rubber, pepper, cocoa and sugar cane, they have superior repositioning to non-superior.
- From the results of the Typology Class analysis on the agriculture subsector of estate crops, it is known that the contribution of commodities and the rate of growth included in quadrant I are oil palm and coconut commodities. Where the contribution and growth rate is greater for the same commodity at the provincial level. Commodities included in quadrant II are fast growing where the excess production is rubber in the OKU Regency, but based on DLQ analysis rubber commodities are not superior. This is due to the transfer of land functions in the rubber-producing area to residential land and fast-growing commodities where commodities contribute less to the province but it has greater growth compared to the same commodities at the provincial level, namely cocoa, coffee and sugar cane. The commodity which is included in quadrant III, which is an advanced but depressed commodity, is cocoa. Growth in terms of the area of harvest commodity land in the OKU Regency which is not surplus, is relatively left behind in the future. Meanwhile, which is included in quadrant IV, namely commodities that are relatively left behind are coffee and sugar cane. Where this commodity has a large level of growth and contribution below the average.

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