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THE CONTRIBUTION OF CASSIVERA IN AGRIBUSINESS DEVELOPMENT IN KERINCI REGENCY

[*1]Endy Effran, [2]Syamsurijal Tan, [3]Suandi, [4]Syaparuddin

[1]Doctoral Study Program in Economics, Postgraduate University of Jambi,
Jl. H. A Manaf, Telanaipura, Jambi 36122, Indonesia.

[2]Economics Study Program, Faculty of Economics and Business, University of Jambi,
Jl. Jambi-Mendalo KM.15, Mendalo Indah, Muaro Jambi 36361, Indonesia.

[3]Agribusiness Study Program, Faculty of Agriculture, University of Jambi,
Jl. Jambi-Mendalo KM.15, Mendalo Indah, Muaro Jambi 36361, Indonesia.

[4]Economics Study Program, Faculty of Economics and Business, University of Jambi,
Jl. Jambi-Mendalo KM.15, Mendalo Indah, Muaro Jambi 36361, Indonesia.

*Corresponding Author

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ABSTRACT

The purposes of the study are (1) to analyze the position of the leading sector of Cassiavera commodity in Kerinci Regency, (2) to analyze the development or change in Cassiavera production in Kerinci Regency. The data of this research is sourced from secondary data obtained from reports from the service or agency, and other related literature. This research was analyzed descriptively and quantitatively with Location Quotient (LQ) and Dynamic Location Quotient (DLQ) analysis methods. The results showed that the LQ index value of the Cassiavera commodity was 19.32 (LQ>1), which means that the cassiavera commodity is the base sector in Kerinci Regency andbased on the calculation of the DLQ index of the Cassiavera commodity, it gets a value of 1.22 (DLQ > 1), so it can be concluded that cassiavera is the base sector and based on the current existing cassiavera commodity is predicted to develop in the future.

Keywords: Cassiavera, Base sector, Location Quotient, Dynamic Location Quotient

ISSN: 2455-6939

Volume: 07, Issue: 06 "November-December 2021"

INTRODUCTION

Jambi Province has a relatively large natural resource potential to support the development of the plantation sub-sector and one of the plantation commodities cultivated is Cassiavera. This spice plant can growth in tropical climates and fertile soils, and the quality of Cassiavera from Jambi Province has been recognized worldwide. Kerinci Regency produces the most Cassiavera in Jambi Province, accounting for 80% of overall output. This area is one of the largest Cassiavera exporters in the world[1].

In general, the role of cassiavera in the regional economy of the Kerinci Regency is very important and dominant in the formation of regional exports. In macro terms, cassiavera is one of the leading commodities that can play a role in the regional economy of the Kerinci Regency[2]. In line with this statement, it is reinforced by data from the Plantation and Livestock Service Office of Kerinci Regency, that Cassiavera commodity is the leading sector in Kerinci Regency. The development of leading commodities in the Kerinci Regency can be seen in Table 1 below[3].

Table 1: The Development of Kerinci Regency's Leading Commodities in 2019

Commodity	Land Area (Ha)	Production (Tons)
Cassiavera	**40,632**	**53.925**
Robusta Coffee	6,942	3,805
Sugarcane	1,875	9,650
Rubber	1,871	399
Arabica Coffee	1.097	203

Source: Department of Plantation and Livestock the Kerinci Regency

From the data above, it can be seen that cassiavera is the first leading commodity with a land area of 40,637 Ha and production reaching 53,663 Tons/year, followed by Robusta Coffee, Sugarcane, Rubber, and Arabica Coffee. Because that, the government continues to develop cassiavera commodities so that it remains sustainable. Based on the above description, the objectives of this study are to first, determine the position of the leading sector of plantation crops in Kerinci Regency and second, find out the development of cassiavera commodity production in Kerinci Regency.

LITERATURE REVIEW

The economic base theory or export-based theory states that the main determinant of a region's economic growth is directly related to the demand for goods and services from outside the

ISSN: 2455-6939

Volume: 07, Issue: 06 "November-December 2021"

region. This economic basis theory essentially distinguishes the base sector and non-base sector activities.

The basic sector is a sector with economic activities whose production results can serve the market both inside and outside the economic boundaries of the community concerned. While the non-basic sector is a sector with economic activity that is only able to provide goods and services needed by people who live within the economic boundaries of the community concerned.[4].

METHODS

The research data is sourced from secondary data obtained from reports agencies or services and other research journals. Data were analyzed descriptively and quantitatively according to their respective objectives. To answer the first objective, which is to find out the position of the leading plantation sector in Kerinci Regency, the Location Quotient (LQ) analysis method is used with the formula[5] :

$$LQ = \frac{\text{li} / \text{lt}}{\text{Pi} / \text{Pt}} \quad \ldots\ldots\ldots\ldots\ldots\ldots (1)$$

Where:

LQ = Location Quotient

li = Production development of commodity type i at the regency level

lt = Development of plantation crop production of all commodity t in regency level

Pi = Production development of commodity type i at the province level

Pt = Development of plantation crop production of all commodities t at the province level

Indicators of possible LQ values that can be put forward:

LQ > 1 indicates that there is a relative concentration in an area compared to the whole region. This means that commodity i in a region is a base sector, which means commodity i in that region has a comparative advantage.

LQ = 1 is a non-basic sector, meaning that commodity i in a region does not have a comparative advantage. the production of commodities produced is only sufficient to meet its own needs in the region.

ISSN: 2455-6939

Volume: 07, Issue: 06 "November-December 2021"

LQ < 1. is a non-basic sector, meaning that commodity i in a region does not have a comparative advantage, the production of commodity i in that region cannot meet its own needs and must obtain supplies from outside the region.

To answer the second objective, the Dynamic Location Quotient (DLQ) analysis method is used, where this index aims to see the development or change in Cassiavera production in Kerinci Regency with the following formula:

$$DLQ = \frac{(1+pi) / (1+pt)}{(1+Gi) / (1+Gt)} \ldots\ldots\ldots\ldots (2)$$

Description:

DLQ = Location Quotient

pi = Development of production of commodity type i at the regency level

pt = Development of plantation production of all commodity t at Regency level

Gi = Production development of commodity type i at the provincial level

Gt = Development of plantation crop production of all commodities t at Province level

Indicators of possible DLQ values are as follows:

DLQ > 1 means that a sector can still be expected to become a basic sector in the future, and

DLQ < 1 means that the sector cannot be expected to become the base sector in the future.

RESULT AND DISCUSSION

Base sector identification

The basic theory of the economic base model holds that the determinants of economic growth in a region are directly related to demand from other regions so that the demand for goods and services stimulates the growth of industries or other sectors that utilize local resources, both in the form of labor and materials. which in turn will stimulate the regional economy [6]. To perform an analysis of the economic basis, one of the methods used is Location Quotient (LQ) analysis which aims to identify and determine the economic sector which is the base and non-base sectors. The basic sector is a sector with economic activities whose production results can serve the market both inside and outside the economic boundaries of the community concerned. While the non-basic sector is a sector with economic activity that is only able to provide goods and services needed by people who live within the boundaries of the community's economy.[7].

ISSN: 2455-6939

Volume: 07, Issue: 06 "November-December 2021"

According to [8] in his research stated that increasing the number of basic activities in an area will increase the flow of income into the area concerned, increase the demand for goods and services so that it will lead to an increase in the volume of activity. If the base activity is reduced, it will reduce the income of a region and the demand for goods and services will decrease so that the volume of activity will decrease. This study compares the production of plantation commodities in Kerinci Regency with the production conditions of plantation commodities in Jambi Province as a reference area. If the calculation results show more than one number (LQ > 1), it means that the sector or sub-sector is the base sector. On the other hand, if the result shows a number less than one (LQ < 1), it means that the sector or sub-sector is a non-basic sector. The results of the Location Quotient (LQ) analysis for the plantation sector in Kerinci Regency in 2010-2019 can be seen in Table 2.

Table 2: Plantation Commodity LQ Index of Kerinci Regency Year 2010 – 2019

No	Commodity Type	LQ										Average
		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	LQ
1	Rubber	0.001	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.02
2	Palm oil	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	Deep Coconut	0.000	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	Hybrid Coconut	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	Robusta Coffee	0.45	6.96	6.15	6.36	6.74	7.07	6.36	7.36	6.84	6.64	6.09
6	Arabica Coffee	0.00	0.00	11.87	11.65	13.89	15.61	14,17	17.35	16.73	18.52	11.98
7	Cassiavera	1.36	20.88	18.74	19.93	21.70	22.26	19.94	23.09	23.42	21.84	19.32
8	Pepper	0.08	1.03	0.75	1.25	1.77	1.12	2.53	2.72	2.98	2.89	1.71
9	Clove	1.27	19.43	17.36	17,17	18.53	18.66	16.71	19.39	19.67	18,17	16.63
10	Cocoa	0.01	0.24	0.21	0.51	0.71	0.79	0.72	1.22	1.45	1.34	0.72
11	Betel nut	0.01	0.10	0.09	0.10	0.06	0.04	0.04	0.06	0.06	0.05	0.06
12	Candlenut	1.03	16.04	15.07	14.49	15.77	15.76	14.31	17.03	17.34	15.93	14.28
13	Aren	0.41	7.32	6.25	5.64	6.09	5.79	5.18	5.94	5.72	4.95	5.33
14	Sugarcane	1.48	22.66	20.37	21.28	22.96	23.51	21.06	24.44	24.79	23.10	20.56
15	Tobacco	1.48	22.67	20.37	18.26	19.23	19.56	16.53	19.59	19.45	20.56	17.77

Source: Plantation Department of Jambi Province (data processed)

Based on the results of the LQ calculation in table 1 above, it is known that there are nine plantation commodities which are the base sector, namely robusta coffee, arabica coffee, cassiavera, pepper, cloves, candlenut, sugar palm, sugar cane, and tobacco. Meanwhile, the other six plantation commodities, such as rubber, oil palm, deep coconut, hybrid coconut, cocoa, and areca nut, are non-basic sectors.

Specifically for the cassiavera commodity, it is known that the average LQ index value is 19.32, which means that the cassiavera commodity is the base sector in Kerinci Regency. Then seen

ISSN: 2455-6939

Volume: 07, Issue: 06 "November-December 2021"

from the development of the LQ index from 2010 – 2019, there was a significant increase in the value of the LQ index from 2010 to 2011, and in 2012 - 2019 the LQ index continued to increase but the increase fluctuated. This happened due to an increase in demand for cassiavera from within and outside the country, with the volume of Indonesian cassiavera exports to the world market reaching 48,899,734 kg or equivalent to 37.04% of the total world cassiavera exports and also cassiavera prices which continued to improve.[9] and [10].

Featured Commodity Reposition

Dynamic Location Quotient (DLQ) analysis is used to determine the reposition of leading commodities in the future in certain areas. This analysis is important to use to find out whether in the future certain commodities can survive as superior commodities or not and vice versa whether previously unseeded commodities can experience repositioning or have the potential to become superior commodities in the future.[7].

To determine whether the superior commodities in the research area can survive or not in the future, a Dynamic Location Quotient (DLQ) analysis is carried out. The results of the calculation of the Dynamic Location Quotient (DLQ) index carried out in the research area can be seen in Table 3.

Table 3: Plantation Commodity DLQ Index of Kerinci Regency 2010 – 2019

NO	Commodity Type	DLQ
1	Rubber	2.29
2	Palm oil	0.31
3	Deep Coconut	2.77
4	Hybrid Coconut	-0.20
5	Robusta Coffee	1.05
6	Arabica Coffee	0.72
7	Cassiavera	1.22
8	Pepper	1.87
9	Clove	2.23
10	Cocoa	3.62
11	betel nut	-0.36
12	Candlenut	-1.63
13	Aren	-0.42
14	Sugarcane	1.04
15	Tobacco	0.98

Source: Plantation Department of Jambi Province (data processed)

ISSN: 2455-6939

Volume: 07, Issue: 06 "November-December 2021"

Based on the results of the DLQ index analysis in table 3 above, it can be identified as follows:

a. Nine plantation commodities have a DLQ index value > 1, including rubber, deep coconut, robusta coffee, cassiavera, pepper, cloves, cocoa, and sugar cane. This sector can become a basic sector in the future because this sector has the potential to develop in the research area.
b. For other plantation commodities, such as oil palm, hybrid coconut, Arabica coffee, areca nut, candlenut, sugar palm, and tobacco, they have a DLQ index < 1, which means that based on the existing commodity, it cannot be expected to become the base sector in the future in Kerinci regency.

Especially in the calculation of the DLQ index for the cassiavera commodity to get a value of 1.22, this means the DLQ value > 1, so it can be concluded that cassiavera is the base sector and based on the current existing cassiavera commodity is predicted to develop in the future.

Based on the calculation results of the Location Quotient (LQ) and Dynamic Location Quotient (DLQ) index calculations, a recalculation was carried out by combining the LQ and DLQ values into the Matrix. The purpose of this calculation is to know the position experienced by the plantation sector in the research area. With the following criteria[11]:

1. If the value of LQ > 1 and DLQ > 1, it means that the plantation sector i is the leading sector both now and in the future.
2. If the value of LQ > 1 and DLQ < 1, it means that the plantation sector i has changed its position from basic to non-basic, which is a prospective plantation sector that can still develop in the future.
3. If the value of LQ < 1 and DLQ > 1, it means that the plantation sector i has been repositioned from non-base to base which is the mainstay plantation sector in the future.
4. If the value of LQ < 1 and DLQ < 1, it means that the plantation sector i remains non-basic both now and in the future.

Table 4: LQ and DLQ Matrics

Component	DLQ 1 prospective	DLQ < 1 Not Prospective
LQ 1 Base Sector	Type I Base Sector, Prospective	Type III Base Sector, Not Prospective
LQ < 1 Non-Base Sectors	Type II Non-Base Sector, Prospective	Type IV Non-base sector, Not Prospective

ISSN: 2455-6939

Volume: 07, Issue: 06 "November-December 2021"

The LQ and DLQ index values are tabulated into the Location Quotient (LQ) and Dynamic Location Quotient (DLQ) matrices, while the results of the LQ and DLQ matrix calculations can be seen in the following table.

Table 5: LQ and DLQ Index Matrics Results

Commodity Type	LQ	DLQ	Information		Conclusion	Type Matrix
			LQ	DLQ		
Rubber	0.02	2.29	Not Base	Prospective	Not a Prospective Base	II
Palm oil	0.00	0.31	Not Base	Not Prospective	Not Base Not Prospective	IV
Deep Coconut	0.00	2.77	Not Base	Prospective	Not a Prospective Base	II
Hybrid Coconut	0.00	-0.20	Not Base	Not Prospective	Not Base Not Prospective	IV
Robusta Coffee	6.09	1.05	Base	Prospective	Prospective Base	I
Arabica Coffee	11.98	0.72	Base	Not Prospective	Unprospective Base	III
Cassiavera	19.32	1.22	Base	Prospective	Prospective Base	I
Pepper	1.71	1.87	Base	Prospective	Prospective Base	I
Clove	16.63	2.23	Base	Prospective	Prospective Base	I
Cocoa	0.72	3.62	Not Base	Prospective	Not a Prospective Base	II
betel nut	0.06	-0.36	Not Base	Not Prospective	Not Base Not Prospective	IV
Candlenut	14.28	-1.63	Base	Not Prospective	Unprospective Base	III
Aren	5.33	-0.42	Base	Not Prospective	Unprospective Base	III
Sugarcane	20.56	1.04	Base	Prospective	Prospective Base	I
Tobacco	17.77	0.98	Base	Not Prospective	Unprospective Base	III

Based on the LQ and DLQ matrix calculations, there are known that five plantation commodities are the basis and their existence will develop in the future. One of the five commodities on which it is based and its current and future existence will become a mainstay commodity is cassiavera. The results of the calculation of the LQ of the cassiavera commodity are the base sector and seen from the calculation of the DLQ are the sectors that are predicted to develop in the future. Then analyzed based on the LQ and DLQ index matrices, the cassiavera commodity is categorized as matrix type I, namely the base sector and prospective, meaning that the cassiavera plant is a basic or superior commodity, and its current and future existence prospectively develops.

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Volume: 07, Issue: 06 "November-December 2021"

CONCLUSIONS AND RECOMMENDATIONS

The results of the calculation of the LQ index value for cassiavera commodities are greater than 1 (LQ> 1), meaning that the cassiavera plant is the base sector in the Kerinci regency. Based on the calculation of the DLQ index of the cassiavera commodity is greater than 1 (DLQ > 1), so it can be concluded that cassiavera is the base sector and based on the current existing cassiavera commodity is predicted to develop in the future.The existence of the cassiavera commodity in Kerinci Regency needs attention considering that this commodity is a superior commodity with its current and future development is very prospective.

Production quality must be maintained, start from planting, maintenance until harvest, and post-harvest so that it will meet standards, especially for export. It is necessary to develop derivative products from cassiavera so that it will add value to the product and it is hoped that the government can provide training or counseling so that farmers understand good cassiavera processing. Farmers, farmer groups, or the government must seek other market shares and take advantage of existing financial institutions

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