

Agricultural Sector Development Study On The Economy Of Southeast Sulawesi

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Abstract. Southeast Sulawesi's economic development is influenced by the performance of economic sectors as reflected in the Gross Regional Domestic Product (GRDP). Southeast Sulawesi's GRDP growth rate based on 2010 constant prices according to business fields for the 2016-2020 period shows that the agriculture, forestry, and fisheries sectors grew 5.06% from 4.25% of the total average GRDP of Southeast Sulawesi. This illustrates that the role of the agricultural sector in the formation of the GRDP of Southeast Sulawesi is quite important so that there is great potential for the development of superior commodities in the agricultural sub-sector that are export-oriented and competitive. This study aims to identify the most superior sub-sectors in the agricultural sector of Southeast Sulawesi, analyze commodities that have a comparative advantage in Southeast Sulawesi exports and examine strategies for developing export-oriented agricultural sub-sectors in Southeast Sulawesi. The analytical tool used in this research was the Location Quotient (LQ) analysis method to determine the leading sub-sectors, the RCA analysis to determine the competitiveness of the commodity, and the SWOT analysis to examine the strategy for developing export-oriented leading commodities for the Southeast Sulawesi economy. The results showed that the fishery sub-sector was the most superior agricultural sub-sector in Southeast Sulawesi with frozen octopus, seaweed, fish (skippers, tuna, tuna) as commodities that have strong competitiveness so that it has the opportunity to be developed using the SO strategy, namely using internal strengths that owned to be used to seize external opportunities or also often called the Aggressive strategy, namely developing export-oriented fishery commodities based on local resources, and improving the economy of coastal communities.

Keywords: Agricultural sector, development, economy

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I. Introduction

The average GDP (Gross Domestic Product) of Indonesia for the period 2016-2020 for all economic sectors shows that the manufacturing industry occupies the main position as an economic sector that contributes to economic development activities with a GDP value of 3,068,014.7 billion Rupiah or contributes to the period 2016-2020 on average. an average of 20.03 percent. Then the agriculture, forestry, and fishery sectors with a GDP value of 1,301,822.92 billion Rupiah or contribute to the economic growth of around 14.74 percent (BPS Indonesia, 2021). This shows that the Indonesian economy is mostly sourced from the manufacturing sector by 20.02% (2016-2020). The sector whose operations are strongly supported by the agricultural sector is around 13.17% on average. The agricultural sector and its sub-sectors make an important contribution to the country's economy. This is related to the availability of agricultural raw materials in processing industry activities

Southeast Sulawesi is one of the provinces located in Eastern Indonesia, has the availability of natural resources both renewable and non-renewable as capital for regional economic development and contributes to Indonesia's Gross Domestic Product. Regional development is considered very strategic within the framework of implementing national development because it encourages increased equity, stability, and community welfare as the main actors of development. One of the indicators used to measure economic development that occurs in an area is economic growth. The aspect of regional economic growth becomes a benchmark for assessing the

success of the implementation of economic development in a region, as reflected in the gross value added of all economic sectors of a region for a certain period known as Gross Regional Domestic Product (GRDP).

Based on the structure of the GRDP of Southeast Sulawesi Province, whose economy still relies on the agricultural sector, the local government continues to promote the development of agricultural commodities through the intensification of superior commodities with potential market share, spurring economic growth, empowering the people's economy, and expanding regional autonomy. Southeast Sulawesi's economic growth rate for the 2016-2020 period varies widely with an average growth of 4.25%. The highest economic growth occurred in 2017 at 6.76%, while the lowest economic growth occurred in 2020 at -0.65%. In 2016 economic growth of 6.51% increased to 6.76% in 2017, a similar condition also occurred in 2018 where the percentage of economic growth again decreased to 6.40% although in 2019 it increased by 6.50%, but returned dropped drastically in 2020 by -0.65% due to the pandemic (covid-19). Based on the average percentage contribution of the five economic sectors that dominate the GRDP of Southeast Sulawesi in 2020, the agricultural sector has the largest contribution to the economy of Southeast Sulawesi Province at 24.04%. In detail, the average contribution of the agricultural sub-sector to the GRDP of the agricultural sector of Southeast Sulawesi 2016 - 2020.

The role of the agricultural sector in the formation of Southeast Sulawesi's GRDP is quite important, it can be seen in the agricultural, livestock, hunting, and agricultural services sectors of 10.16% with an average total contribution of agriculture, forestry, and marine 24.04%. This can be seen in the contribution of each sub-sector from 2016 to 2020, namely: food crops sub-sector of 1.79%, horticultural crops sub-sector of 0.81%, plantation crops sub-sector of 5.28%, livestock sector by 2.12%, agriculture and hunting services by 0.14%, forestry and logging sub-sector by 0.48% and fisheries sub-sector by 9.38%. (Central Bureau of Statistics, Southeast Sulawesi Province, 2021).

The phenomenon of the agricultural sector which remains the main sector forming the economy of Southeast Sulawesi in the contribution of the mining/excavation sector which tends to increase in the last five years 2016-2020 becomes an object that needs to be studied because the agricultural sector is a sector that is still the main source of livelihood for the community in some areas. region by working and contributing in this sector. There are 473,265 people (308,205 men and 165,060 women) workers who contribute to the agricultural sector in 2020 or around 36.71% of the 1,289,232 inhabitants of the Southeast Sulawesi population who work by main occupation, 44.94% by sector. services and 18.35% of the industrial sector (BPS Southeast Sulawesi, 2021), as research conducted by Darman, 2016 on the analysis of leading sectors and employment in Southeast Sulawesi Province concluded that the superior economic sector in Southeast Sulawesi Province in terms of output namely agriculture, transportation and communication, and services. Meanwhile, from the aspect of labor, the sector that has a greater absorption of labor in Southeast Sulawesi Province than the absorption of labor nationally is the agricultural sector.

Southeast Sulawesi's export activities with various agricultural commodities, horticulture, plantations, animal husbandry, forestry, fisheries also contribute to local revenue which contributes to the implementation of development programs in this region. This phenomenon illustrates that the agricultural sector of Southeast Sulawesi is one of the economic sectors that contributes greatly to the regional economy in real implementation in the field has not been maximized with indicators on export activities that are still limited to general commodities in each sub-sector but the export value obtained is still far from the expectation that there should be an increase in the value of exports considering the regional potential and the availability of human resources in this sector is quite supportive. Southeast Sulawesi, with an area that is mostly land and sea, reflects the potential of this regional original income from the leading commodities in each sub-sector, especially the agricultural sector so that it supports the implementation of economic development programs in various economic sectors, but the fact is that in the field not all of these superior commodities have a comparative advantage or strong competitiveness so that it has an impact on the volume and value of exports that have not been able to compete with the same product from other countries.

An appropriate development strategy in the development of the agricultural sector of Southeast Sulawesi will directly contribute more to the regional economy because not all strategies are right on target, sometimes they should be aggressively developed with all the strengths and opportunities that are expected, but it leads to only surviving under favorable conditions. exist or even tend to reverse and the strategy is double. This is what needs to be observed in determining the right strategy for the development of agricultural development.

According to Prof. Simon Kuznets in Todaro (2003) states that economic growth is an increase in the long-term capacity of the country concerned to provide various economic goods to its population. The increase in capacity is made possible by advances or technological, institutional, and ideological adjustments to various existing conditions, including in the leading agricultural sector as Tarigan (2005) also suggests that the criteria for a sector to be said to be a leading sector is when the sector has a high growth rate. The sector has relatively large workforce absorption. The sector has a high linkage between sectors both forward and backward and the

sector can create high added value. Therefore, the leading sector is a sector whose current existence has played a major role in the economic development of a region with each advantage or criterion possessed. Furthermore, this factor developed further through investment activities and became the foundation of economic activity. This is based on how big the role of the sector in the regional economy (Rahardjo, 2013). Furthermore, the priority of agricultural commodities in Southeast Sulawesi Province using a combination of AHP (Analytical Hierarchy Process) and Borda Count (BC) shows that districts have different priority commodities depending on agroecological characteristics and socio-economic conditions (Saediman, 2015)

The development of leading commodities in the export-oriented agricultural sector with the right strategy will contribute to the development and economic growth of the region whose target is the implementation of development programs to create community welfare based on the sector's contribution to the economic sector. In this case, the principle of strategic management is always applied as Wheelen and Hunger (2009) argue that strategic management is referred to as a series of managerial decisions and activities that determine the success of the organization in the long term. Therefore, strategy is a form of the technique used to achieve company or organizational goals, strategy is also used as a tactic to maintain the existence of a company, be able to compete with its competitors, and sustainability. The strategy has multifunctional or multidivisional consequences and in its formulation, it is necessary to consider internal and external factors faced by the company.

II. Materials And Method

The determination of the research location was chosen intentionally (purposive sampling) with the consideration that an inequality occurred, namely based on data from the Central Statistics Agency of Southeast Sulawesi in 2021 during 2016-2020 the agricultural sector experienced fluctuations in the contribution of Gross Regional Domestic Product by business field to economic growth, while Domestic Product The Gross Regional Area of this sector continues to increase and the tendency of community economic activity still dominates the agricultural sector. On the other hand, the mining/excavation sector continues to increase both in terms of Gross Regional Domestic Product and the contribution of this sector to economic growth. This research was conducted in the Southeast Sulawesi region from May to July 2021.

The sampling technique was chosen intentionally (purposive sampling) consisting of the Head of the Southeast Sulawesi Marine and Fisheries Service, (2) the Head of the Southeast Sulawesi Agriculture Service; (3) Head of the Southeast Sulawesi oceanic fishing port; (4) Head of the Southeast Sulawesi industry and trade department; (5) Coordinator of fishery extension officers (PPL) Southeast Sulawesi (6) Representatives of community economic institutions (fishery cooperatives), (7) representatives of the Southeast Sulawesi fishing industry, and (8) fishermen from Kendari City Fish Auction Place (TPI), using interview guidelines which have been prepared.

The focus of this study was to identify the most superior agricultural sub-sector commodities, analyze the leading commodities in the export-oriented leading sub-sectors in Southeast Sulawesi, and examine the strategy for developing the leading export-oriented commodities in Southeast Sulawesi.

The data analysis method used in this study was the location query (LQ) analysis method applied by Kuncoro (2004) to determine the leading sub-sector or the economic basis of a regional economy, the RCA analysis method to see the competitiveness of export commodities, and the SWOT analysis method to determine the competitiveness of export commodities. examine the strategy of developing export-oriented leading commodities. Location Quotient (LQ) analysis by presenting a relative comparison between the capabilities of the same sector in a wider area by having the following formula:

$$LQ = \frac{S_{ir}/PDRB}{S_{in}/PDB}$$

Information :

LQ = Location Quotient

S_{ir} = sectoral added value (i) regionally

GRDP = Gross Regional Domestic Product

S_{in} = sectoral added value (i) nationally

GDP = Gross Domestic Product (Harafah, 2015)

Based on the above formulation, the results of the LQ calculation can be described as follows:

If $LQ > 1$, it can be said that the product/commodity is said to be basic, which means that the product/commodity produced by the region can meet the needs of its people, and can even be traded between islands or exported abroad.

If $LQ < 1$, it can be said that the product/commodity is said to be non-basic which means that the product/commodity produced by the region cannot meet the needs of its people, so it needs supplies from outside, both from outside the region and from abroad (imports).

If $LQ = 1$, it can be said that the product/commodity is said to be unitary, which means that the product/commodity produced by the region is only sufficient to meet the needs of its people, but cannot be traded between islands or abroad.

While answering the problem formulation of the two leading commodities that have a comparative advantage on Southeast Sulawesi exports, Revealed Comparative Advantage (RCA) Analysis is used with the following formula formulation:

$$RCA = \frac{X_{ij}/X_j}{X_{iw}/X_w}$$

Information :

X_{ij} = Export value of commodity i from Southeast Sulawesi

X_j = Total value of Southeast Sulawesi's non-oil exports

X_{iw} = Value of commodity exports i Indonesia

X_w = Total value of Indonesia's non-oil exports

And to answer the third problem formulation regarding the strategy for developing export-oriented leading commodities in Southeast Sulawesi, a SWOT analysis tool is used

III. Result And Discussion

Agricultural development with all the risks in its development in the form of changing climatic conditions, natural disasters, and others has an impact on the output obtained and the global economy. Thus the development of the agricultural sector is always formulated with long-term goals, always sustainability so that economic actors in this sector can contribute optimally. As A.T Mosher (1991) suggests that there are five basic (absolute) requirements as a facilitating condition for agricultural development, namely (1) the existence of a market for agricultural products; (2) the ever-evolving technology; (3) Availability of materials and means of production locally; (4.) There is a production incentive for farmers; and 5 Availability of smooth and continuous transportation. Meanwhile, the sufficient conditions referred to by Mosher include: (1). Availability of non-formal education such as courses, counseling, training, and so on. (2). Availability and access to a production credit. (3). Continuity of implementation of farmer cooperation activities. (4). Improvement and expansion of agricultural land and (5) National planning for agricultural development. Agriculture is a sector that plays a very important role in the process of development and economic growth. Economic growth is the process of increasing output per capita in the long run. The emphasis is on three aspects, namely: process, per capita output, and long term. Economic growth is a process, not an economic picture at a time. Here we look at the dynamic aspects of an economy, namely how that is, how an economy develops or changes over time. that is, how an economy develops or changes over time. The emphasis is on change or development itself (Boediono, 1999).

Southeast Sulawesi is one of the provinces in Indonesia which is geographically located on the southeastern peninsula of Sulawesi Island and south of the equator, extending from north to south between 02045'-06015' South Latitude and stretching from West to East between 1200 45'-1240 45' East Longitude and has a land area of 38,140 km² (3,814,000 ha) and sea waters covering an area of 110,000 km² (11,000,000 ha). The area of Southeast Sulawesi is 38,670.70 Km² with 222 sub-districts and 2,317 villages and climatologically, Southeast Sulawesi has a tropical climate with an average air temperature of 27.30C, an average rainfall of 2,316.9 mm, and a totally rainy day 246 days. (Central Bureau of Statistics of Southeast Sulawesi, 2021).

The population of Southeast Sulawesi based on data from the population census (SP) 2020 (September) from the Central Statistics Agency 2021 totaled 2,624,875 people, an increase from 2010 as many as 2,232,586 people with an annual population growth rate of 1.58% for the 2010-2010 period. 2020. Population distribution by district/city tends to fluctuate with a population density per km² in 2020 of 68.95 people.

Three main employment sectors dominate the activities of the population of Southeast Sulawesi including the agricultural sector as many as 473,265 people (36.71%), the manufacturing sector with 236,616 people (18.35%), and the service sector with 579,351 people (44.94%).). Likewise, export performance in 2015-2020, based on direct exports, reflected an increase in the last four years of 2015-2019, with a volume of 80,902.57 tons and an export value of 134,489.27 thousand US\$ in 2015 increasing to 9,156,740.00 tons and export value of 1,584,732.58 thousand US\$ in 2019. Meanwhile, in 2020, although the export volume directly decreased quite drastically from 14,032,134.98 tons to 1,527,100.75 thousand (US\$), the export value obtained increased from 1,584,732.58 thousand (US\$) to 2,159,212.29 thousand (US\$). In contrast to indirect exports in 2020, the export volume increased by 98,413.78 tons from the previous year but the export value produced decreased by 238,301.91 thousand US\$ from the previous year of 275,020.90 thousand US\$, this condition was

due to the existence of pandemic (covid 19) that hit the whole world to have an impact on import-export activities.

The results show that the Location Quotient (LQ) analysis of the agricultural sub-sector of Southeast Sulawesi describes the potential of the sub-sector for commodity specialization that can be developed in this region. The LQ value obtained > 1 is described as the base sector, meaning that the products/commodities produced by the region can meet the needs of its people, and can even be traded between islands or exported abroad. Meanwhile, if the LQ value < 1 means that the product/commodity produced by the region cannot meet the needs of its people, so it needs supplies from outside, both from outside the region and from abroad (imports), and vice versa if the LQ value $= 1$ means that the product The commodities produced by the region are only sufficient to meet the needs of the people, but cannot be traded between islands or abroad.

Based on these categories, the agricultural sub-sector that excels and forms the basis for the agricultural sector in Southeast Sulawesi is the plantation sub-sector with an average LQ value of 1.08 and the fisheries sub-sector with an average LQ value of 2.63. These two sub-sectors have an LQ value > 1 , meaning that these two sub-sectors can meet the needs of the people of Southeast Sulawesi for the products/communities produced so that the opportunity for export to other countries is very potential. However, based on the LQ values of these two sub-sectors, the fisheries sub-sector has more potential in meeting the needs of other regions or countries in the form of exports with a comparative advantage. Competitive fisheries sub-sector commodities will contribute to Southeast Sulawesi's source of income from the export aspect.

Furthermore, the results of the RCA analysis based on the research concluded that the frozen octopus, seaweed, fish (skip skipjack, tuna, and tuna) commodities are fisheries and marine sub-sector commodities that have a comparative advantage with strong competitiveness. The average RCA value for the period 2015-2020 for each commodity Frozen Octopus (24.2), seaweed (2.6), and fish (skipper, tuna, tuna 2.0), greater than 1 means these three commodities have a comparative advantage with strong competitiveness (RCA > 1). The competitiveness of this commodity is not only in the environment of Southeast Sulawesi but can compete at the national level (Indonesia) with the same commodity, especially at the international level (exports).

Meanwhile, shrimp, squid, shellfish are 3 commodities that have RCA values < 1 of 0.4, 0.2, and 0.2 respectively, meaning that the competitiveness of these commodities is weak, only in Southeast Sulawesi, which has not been able to compete at the national level. Indonesia) with the same commodity, especially at the international level (exports). Shrimp is also one of the most exported commodities in Southeast Sulawesi in 2020, but the export volume is still not maximized which affects the export value, so its contribution to Southeast Sulawesi's PAD is not optimal.

Thus, based on the results of the grand strategy analysis of the SWOT interaction, an alternative strategy that can be considered effective and efficient for determining the strategy for developing octopus, seaweed, and fish (skippers, tuna) commodities as the leading commodities of the fishery and marine sub-sectors of Southeast Sulawesi export orientation is the SO strategy. . That is a strategy by using internal strengths that are owned to take advantage of existing external opportunities, or also often referred to as an aggressive strategy, namely (1) Developing export-oriented fishery commodities based on local resources, and (2) Improving the economy of coastal communities.

IV. Conclusion

Based on the description above, it can be concluded that:

1. The most superior agricultural sub-sector in Southeast Sulawesi's agricultural sector is the fisheries sub-sector as indicated by the average value of LQ for the last ten years (2010-2020) of 2.63
2. Commodities in the leading sub-sectors of the agricultural sector that have a comparative advantage in exports in Southeast Sulawesi are a frozen octopus, seaweed, fish (skippers, tuna, and tuna) with an average RCA value for the last five years (2015-2020) each 24.2 (Frozen Octopus), 2.6 (Seaweed), 2.0 (Sky skipjack, tuna, and tuna). RCA value > 1 indicates the strong competitiveness of the commodity in exports.
3. The strategy for developing export-oriented agricultural sub-sector commodities in Southeast Sulawesi is the SO strategy (aggressive strategy) based on a SWOT analysis consisting of:
 - a. Developing fishery and marine commodities with potential fishery resources and the availability of populations scattered in Southeast Sulawesi waters as raw materials for processed fishery commodity products
 - b. Increasing the capacity of fishermen through coaching and training in techniques for increasing catch of commodity products to increase skills in catching.
 - c. Improving the economy of coastal communities through the new business of commodity processed products with the availability of human resources to support the fisheries sector
 - d. Streamlining fishery community economic institutions (LEM) through processing commodity products with competitive export values

e. Maintaining the habitat and ecosystem of marine biota through the preservation of the coastal environment and the sustainability of the export of commodities with guaranteed quality at a satisfactory export volume and export value.

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