The changes of Economic Structure of Baubau City Southeast Sulawesi Province

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---ABSTRACT---

The purpose of this study was to analyze the changes of the economic structure of Baubau City in Southeast Sulawesi Province.

This research used quantitative approach and secondary data sourced from Biro Pusat Statistik (BPS) to obtain a factual description of the normal pattern of changes in the economic structure of Baubau City in Southeast Sulawesi province. Used the shift share analysis for three main sectors consists of primary, secondary and tertiary sector of Baubau City Southeast Sulawesi province. And for the Time series data begin from 2002 to 2013.

The Results showed that there has been a change in the economic structure of Baubau City in Southeast Sulawesi Province. The pattern of changes in the economic structure did not follow the normal pattern, that begin from the primary sector to the secondary sector and then to the tertiary sector. The economic structure of Baubau shifted from the primary sector to the tertiary sector was not through the secondary sector. The average contribution of the primary sector in 2002-2013 amounted to 9.65 percent, the secondary sector amounted to 25.54 percent and the tertiary sector amounted to 64.8 percent. The contribution of the secondary sector was low compared to the tertiary sector, but it was competitively. Therefore the government policy was needed to encourage the development of the tertiary sector.

Keyword: Economic structure

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I. INTRODUCTION
1.1. Background
The purpose of the implementation of the long-term development in all aspects is expected that the change in the economic structure from the primary sector to the secondary sector or the tertiary sector becomes more balanced with the support by the power of industries and services. The Development policies that were conducted by the government are expected to have an impact on economic growth which cans create the jobs to achieve the main goal of increasing the welfare of society.

Sukirno (2006; 143) explained that the changes in the economic structure of various countries can be differentiated by the percentage of workers who work in the primary sector, the secondary sector and the tertiary sector.

The rate of economic growth of a region indicated by a change in Gross Domestic Product (GDP) that was expected to change the economic structure of the traditional economy into a modern economy. The Changes in the economic structure was reflected through the contribution of each sector to the formation of Gross Regional Domestic Product (GDP). The Primary sector contribution decreased while the secondary and tertiary sectors were expected to increase. In general, the economic structure of Baubau in Southeast Sulawesi province currently on 9 sectors of the economy. From nine economic sectors are classified into three main sectors namely primary sector, the secondary sector and the tertiary sector.

The changes in economic structure of Baubau were unknown. On this basis, the researcher was interested in doing research with the title "The Changes of economic structure of Baubau, South East Sulawesi province”

1.2. Problem Formulation
Based on the background that has been described above then that becomes an issue in this research are:
1. Is there a change of economic structure of Baubau, Southeast Sulawesi Province?
2. How was the change in economic structure of baubau, whether or not according to the normal pattern?

1.3. Research Purposes

The purposes of this study are:

1. To determine the changes in economic structure of Baubau city Southeast Sulawesi province.
2. To analyze the shift in economic structure of Baubau city Southeast Sulawesi province.

1.4. The Benefits of Research

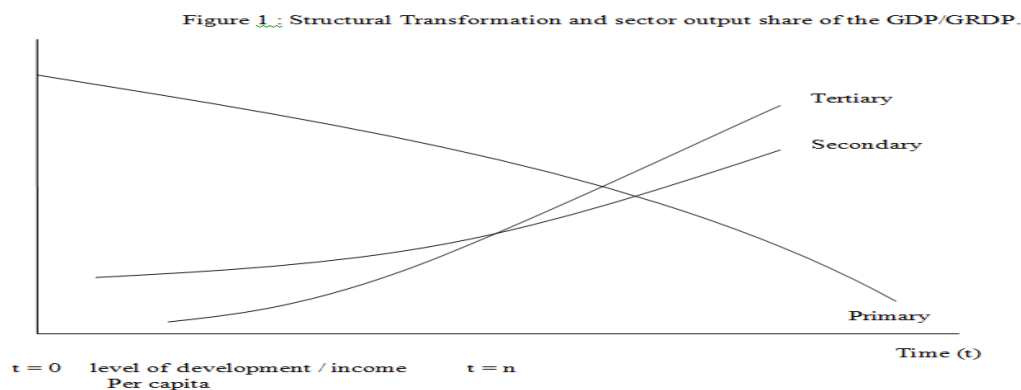This study is expected to provide the following benefits:

1. Can be used as information for the policies formulation of economic development in Southeast Sulawesi.
2. Represents information for further research.

II.   LITERATURE REVIEW

2.1. Theory of Economic Structure Transformation

Chenery 1992 in Tambunan 2001 explained that the process of structure transformation will reach a level that most quickly when a shift in the pattern of domestic demand towards the manufacturing industry output amplified by similar changes in the composition or export trade, as happened in countries group of Newly Industrialized Countries (NICs) , Structural transformation can be seen in changes in the share value of output or value added of each sector in the GDP or gross national product or national income.

According to Chenery and Syrquin in Sukirno (1995:216) structural economic changes in development process in the developing countries shows ten kinds of changes that occur. These changes can be divided into three changes. Changes in the economic structure which is seen as a change in the process of accumulation, changes in economic structure which is seen as a change in the process of allocation of resources, and changes in the economic structure which is seen as a change in the demographic and distributive. The pattern can be presented in the figure below.

Figure 1 : Structural Transformation and sector output share of the GDP/GRDP.

The chart above shows that if t = 0, means the economy at the beginning of the year in which the development has not been taking place and the level of development and per capita income is still low, while t = n means the economy in the long run where the development has been done.

Kuznets in Sukirno (1995: 116) argues that the change of economic structure in the development process not only because of the change in the percentage of people who work in the various sectors and sub-sectors in economic development, but it cause of changes in various economic sectors contribution to the national product.

Sudarsono (1995: 86) states that the structural changes in Indonesian tendency is as follows: The role of the agricultural sector (measured by value added contribution and employment) will decrease and gradually replaced by the role of industry and services sectors.

III.   METHODOLOGY

The research location was Baubau City Southeast Sulawesi Province. This type of research is quantitative descriptive, describing the economic structure of Baubau City Southeast Sulawesi. The data used is secondary data consists of nine economic sectors are grouped into three main sectors, namely the primary sector, the secondary sector and the tertiary sector. data sources come from BPS Southeast Sulawesi Province, as well as related agencies. The variables studied were the Gross Regional Domestic Product (GRDP) at 9 sectors of the economy and grouped into three main sectors namely the primary sector, the secondary sector and the tertiary sector. The data used in the data time series in 2000 - 2013 as well as other data related to this survey.

3.1. Data Analysis

Analysis of the data in this study using shift share analysis (Tri Widodo, 2006) as follows:

The real impact of the economic growth in Baubau:

➤ $D_{ij}=N_{ij}+M_{ij}+C_{ij}$ or $D_{ij}=E_{ij}* - E_{ij}$

The influence the economic growth of Southeast Sulawesi province:

➤ $N_{ij}=E_{ij}xr_n$

The proportional shift or industrial mix effect:

➤ $M_{ij}=E_{ij}(r_{in} - r_n)$

The effect of Competitive Advantage:

➤ $C_{ij}=E_{ij}(r_{ij} – r_{in})$

Information:

E_{ij} : employment of i sector in Baubau City

E_{in} : employment of i sector in Southeast Sulawesi

r_{ij} : growth rate of i sector in Baubau City

r_{in} : growth rate of i sector in Southeast Sulawesi

r_n : the rate of economic growth in Southeast Sulawesi.

The growth formula used to calculate Economic growth. To measure the economic growth and the growth of each sector used the following formula
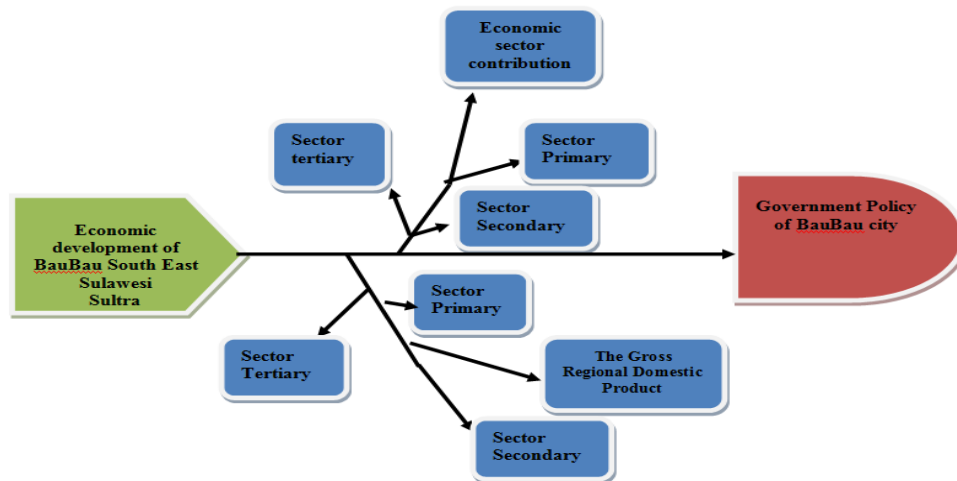
Gy =Yt -Yt-1/Yt-l x 100 %.

Gy = the GDP growth in year.

Yt = GDP given year.

Yt-1= GDP the year before.

3.2. Flowchart Research

IV. ANALYSIS AND RESULT

Baubau city is a city on the island of Buton, Southeast Sulawesi. Baubau gained city status on June 21, 2001 under Law No. 13 of 2001. Based on the Regulation No. 02 of 2010 on the Establishment Anniversary of the City Baubau and the changes in writing Baubau, set out in clause 5, 1st and 2nd paragraph that the writing name of Bau-Bau into Baubau, in accordance with the enhanced spelling. At The regulation also stipulated that Baubau anniversary on October 17, 1541..

Geographically located in the south of the equator between 5:21 ° - 5:33 ° south latitude and between 122.30 ° - 122.47 ° East Longitude or located in the southern province of Southeast Sulawesi.

Baubau city has a land area of 221.00 km² area, the sea area of 30 km² is a potential area for the development of marine transport facilities and infrastructure. Baubau City area bordered by:

North bordering by the Strait of Buton, South by Wajo market in Buton regency, the west by Kadatua, South Buton, the east by Kapontori, Buton regency. Administration area of Baubau City in 2013 consists of eight sub-districts and 43 villages. Baubau becomes a capital.

The Population of Baubau in 2010 as many as 136.991 people increased to 139.717 people in 2011. the population grew to 142.576 in 2012 and increased to 145 427 people in 2013, consists of 71.817 males and 73.610 females population with sex ratio 97,56 and the rate of population growth was 2.00 percent. Baubau population sex ratio in 2013 was 97.56, which means every 100 females there are 97 males population. And population density of Baubau City in 2013 was 476 people / km2.

Previous Baubau city is the capital of Buton District. In line with the implementation of development was carried out and accompanied by the development of society and regional autonomy then Baubau changed its status to Baubau City. The development of Baubau city from year to year is very rapidly. The economic performance of Baubau can be seen through the development of Gross Domestic Product (GDP).

Table 1.   Gross Regional Domestic Product of Baubau at Current Market Prices by business sector 2012 - 2013 (million rupiah)

No	Business Sector	Year		Growth (%)
		2012	**2013**	
1.	Agriculture	66596.84	70027.82	05,15
2.	Mining And Quarrying	7055.97	7777.80	10.23
3.	Manufacturing	36463.40	40413.40	10.83
4.	Electricity, Gas & Water	9834.74	11241.74	14.30
5.	Building	226,916.27	248,314.47	09,42
6.	trades, Hotels & Restaurants	207,084.37	223,691.52	08,01
7.	Transport and Communications	104,35177	82 97517.77	07,00
8.	finance, real estate & business Services	72646.19	8. 81911.59	12.75
9.	Services	200,026.79	188,642.70	06,03
10.	GDP By Oil and Gas	912,758.25	987,756.95	08,21
11.	GRDP Without Oil and Gas	912,758.25	987,756.95	08,21

Source: BPS Southeast Sulawesi province in 2014, processed

Table 1. Data showed that Electricity, Gas & Water sector was the highest growth sector in Gross Domestic Product of Baubau at Current Market Prices by business sector 2012-2013 reached 14.30 percent followed by Manufacturing sector 10.83 percent then the Mining and Quarrying sector 10.23 percent. Agriculture sector is lowest sector growth in Gross Domestic Product (GDP) for 2012/2013 amounted to only 05.15 percent.

The table below shows the development of the Gross Regional Domestic Product of Baubau at Constant Prices by business sectors 2012 – 2013.

Table 2. Gross Regional Domestic Product of Baubau at Constant Prices by business sector 2012-2013 (millions rupiah)

No	Business Sector	Year		Growth (%)
		2012	**2013**	
1.	Agriculture	66596.84	70027.82	05.15
2.	Mining And Quarrying	7055.97	7777.80	10.23
3.	Manufacturing	36463.40	40413.40	10.83
4.	Electricity, Gas & Water	9834.74	11241.74	14.30
5.	Building	226,916.27	248,314.47	09.42
6.	Trade, Hotels & Restaurants	207,084.37	223,691.52	08.01
7.	Transportation & Communications	97517.77	104,351.82	07.00
8.	Finance, Real Estate & Business Services	72646.19	81911.59	12.75
9.	Services	188,642.70	200,026.79	06.03
10.	Finance, Real Estate & Business Services	912,758.25	987,756.95	08.21
11.	GDP without Migas	912,758.25	987,756.95	08.21

Source: BPS of Baubau city, 2014

Table 2. Data shows that Electricity, Gas & Water sector is the highest growth sector in Gross Regional Domestic Product of Baubau at Constant Prices by business sector 2012 - 2013 reached 14.30 percent followed by the financial sector, Real Estate & Business Services 12.75 percent then 10.83 percent of manufacturing sector. Agriculture sector is the lowest sector growth in Gross Domestic Product (GDP) amounted to only 05.15 percent. To detail can be seen in the chart below. Gross Regional Domestic Product (GDP) of Baubau has constant prices and current prices according to the business sector 2012-2013.

4.1. Analysis of Changes In The Economic Structure Of Baubau City

The economic development of Baubau city can be seen through the region's economic performance. It can be observed through development Gross Regional Domestic Product (GDP) by line of business since the year 2002 to 2013 were classified based on three main sectors namely the primary sector , the secondary sector and the tertiary sector . it can be seen in the following table.

Table 3.   Gross Regional Domestic Product of Baubau city at Current Market Prices by business sector 2002-2013 (millions rupiah)

No	year	Ekonomic Sectors			Total PDRB	
		Primary	**Secondary**	**Tertiary**	**By oil and gas**	**Without oil and gas**
1.	2002	75.498,03	112.250.,30	332.619,38	520,367.71	520,367.71
2.	2003	107.662,66	120.955,96	377.388,45	606,007.07	606,007.07
3.	2004	131.640,80	140.784,63	443.009,62	715,435.06	715,435.06
4.	2005	168.316,04	168.657,95	558.913,68	895,887.67	895,887.67
5.	2006	194.653,38	196.360,70	671.174,02	1,062,188.10	1,062,188.10
6.	2007	217.912,36	242.149,91	794.428,38	1,254,490.66	1,254,490.66
7.	2008	253.333,68	314.461,45	991.313,66	1,559,108.79	1,559,108.79
8.	2009	293.859,13	386.145,16	1.196.991,17	1,876,995.46	1,876,995.46
9.	2010	306.567,41	473.570,90	1.303.107,66	2,083,245.97	2,083,245.97
10.	2011	331.149,42	538.514,68	1.470.235,62	2,339,899.73	2,339,899.73
11.	2012	353.782,31	661.861,89	1.619.002,93	2,634,647.13	2,634,647.13
12.	2013	383.010,26	753.341,48	1.816.385,74	2,952,737.48	2,952,737.48

Source: BPS of Baubau city, 2014

Table 3 data showed that Gross Domestic Product (GDP) of Baubau at Current Market Prices by business sector Year 2002 to 2013, the lowest Gross Regional Domestic Product (GDP) for the primary sector in 2002 and highest in 2013. The lowest Gross Domestic Product (GDP) for tertiary sector in 2002 and the highest in 2013. In general the highest Gross Domestic Product (GDP) for the three economic sectors of Baubau shows an increase. To determine the changes in the economic structure of Baubau can be observed through the contribution of economic sectors to the formation of Gross Regional Domestic Product (GDP) in the economy. The nine economic sectors are classified into three main sectors namely the primary sector, the secondary sector and the tertiary sector. The contribution of economic sectors to the Gross Regional Domestic Product Baubau city can be seen in the following table.

Table 4. The contribution of Economic Sector to the Gross Regional Domestic Product of Baubau at Current Market Prices by business sector 2002 - 2013 (percent)

No	Year	The contribution of economic sectors to GRDP (%)		
		Primary	**Secondary**	**Tertiary**
1.	2002	10.61%	22.02%	67.37%
2.	2003	10.49%	23.22%	66.29%
3.	2004	10.91%	23.65%	65.44%
4.	2005	10.64%	23.30%	66.06%
5.	2006	10.23%	23.67%	66.10%
6.	2007	10.05%	24.61%	65.33%
7.	2008	9.73%	25.16%	65.11%
8	2009	9.52%	25.38%	65.10%
9.	2010	9.07%	27.36%	63.57%
10.	2011	8.56%	27.84%	63.60%
11.	2012	8.07%	29.93%	62.00%
12.	2013	7.88%	30.37%	61.75%
Average		**9.65%**	**25.54%**	**64.81%**

Source: BPS of Baubau city, 2014

Table 4. Data Showed that since 2002 - in 2013 the contribution of the primary sector to the Gross Regional Domestic Product (GRDP) of Baubau tended to decrease from 10.61 percent in 2002 fell to 7.88 percent in 2013. The secondary sector showed a trend increase in 2002 and the contributions by 22,02 percent to 30.37 percent in 2013. Tertiary sector was fluctuating and tend to decrease, 67.37 percent in 2002 to 61.75 in 2013. The average of contribution of economic sector has formation of Gross Regional Domestic Product (GRDP) of Baubau period 2002-2013, showing a change in the economic structure. The largest contribution to the formation of Gross Domestic Product (GDP) of Baubau City is tertiary sector amounted to 64.81%, followed by the secondary sector amounted to 25.54%, then the primary sector amounted to 9.65%. This indicates that there has been a shift in the economic structure in Baubau from the primary sector to the tertiary sector is not through the secondary sector. The pattern of changes in the economic structure in Baubau do not follow the normal pattern that primary sector to the secondary sector and then to the tertiary sector.

4.2. Shift-Share Analysis of Economic Structural of Baubau City

Shift-share analysis is a method of analysis is often performed by practitioners and decision makers both locally and regionally around the world to set a target of industry/sector and analyze the economic impact. Shift share analysis enables for analyzier to identify the advantage of regional and analyze the industry/sector which became the basis of regional economy. The Effect of Industry Mix-called proportional shift or mix composition. The advantage of Shift -share analysis, can provide a description of changes in the economic structure. Provide a description of the economic growth and changes in economic structures with a quite accurately. the results of Shift Share calculations of Baubau City's economy was based on the business sector which can be seen in the table below.

Table 5. The Result of Shift Share calculations of Baubau economy

No	Business Sector	Growth			GRDP (OUTPUT)	Component (Million Rupiah)				
		Rn	Rin	Rij	Eij	Nij	Mij	Cij	Dij	
1	Primary sector	0.08	0.06	0.05	52,291.27	4,192.86	-996.57	-365.89	2,830.40	uncompetitive
2	Secondary sector	0.08	0.09	0.11	146,497.52	11,746.57	2,121.34	2.905.01	16,772.92	competitive
3	Tertiary sector	0.08	0.09	0.08	359,077.91	28,791.84	4,556.36	-5.725.02	27,623.18	uncompetitive
Total		0.08	0.08	0.25	557,866.70	44,731.27	5,681.13	-3.185.89	47,226.50	

Table 5. Data showed that by using shift share analysis is known that during the period 2002 - 2013. Products Gross Regional Domestic Product (GRDP) of Baubau increased economic performance of Rp 47226.50 (million). This is evidenced by the results of shift share calculation on the component values (Dij positive) on the three economy sectors that is the primary sector, the secondary sector and tertiary sector. The increase in economic performance of the regional donated by the biggest economic sector that is tertiary sector with a value of Rp 27623.18 (million), Followed by the secondary sector Rp 16772.92 (million), then the primary sector Rp.2830.40 (million). (The real impact of regional economic growth)

The results of component calculations of competitive advantage by using analysis shift share, the competitive economic sector in Baubau city on the period of observation produces a value (Cij positive) for the secondary sector, the primary sector and tertiary sector has a value (Cij negative). Cij positive value of Rp.2905.01 (million) for the secondary sector, the value (Cij) Rp. 5725.02 for the tertiary sector, while the value (Cij negative) for the primary sector is Rp. 365.89 (million).

The sector compared to the same sector at the level of the economy Southeast Sulawesi province. This value indicates that in Baubau based on the shift share calculation for the economic sector with the competitive advantage shows that the economic sector that has a competitive advantage in improving the economy in Baubau city is secondary sector. These results indicate that the secondary sector is competitive in Baubau City compared to the same sector in Southeast Sulawesi province level, while the primary sector and the tertiary sector uncompetitive.

Further shift share analysis for Output generated from mix component industry in the economy in Baubau in the period observation, as a result of interaction due to changes in the economy of the region Southeast Sulawesi province showed a negative impact especially on the primary sector. This is evidenced by the results of the shift share calculation of the component values (Mij negative) amounting to Rp.996.57 (million) for the primary sector. For secondary and Tertiary sector, the output generated due to mix industry has positive impact for the economy of Baubau indicated by the value of the component (Mij positive) with a value of Rp 4556.36 (million) for the tertiary sector and Rp.2121.34 (million) for the secondary sector.

Shift share Analysis for the composition of regional economy growth that is shown by how the influence economic growth in Southeast Sulawesi province on economy growth of Baubau showed a positive value for all sectors the primary sector, the secondary sector and the tertiary sector. This is evidenced by results of shift share calculation for component value (Nij positive), with a total Output value Rp 44731.27 (million)

While value of sector growth aspects of Baubau City compared with the relative growth of the same economy sectors at Southeast Sulawesi province level showed that all economy sectors in Southeast Sulawesi province level that the primary, secondary and Tertiary sector relatively not the same compared to Baubau City. This is shown by the calculation of shift share by the component (Rin) and (Rij) values for Primary, secondary and the tertiary sector of Southeast Sulawesi province and Baubau city to the same sector. Rin s values Component > Rij value component (0.06> 0.05) for the primary sector. The primary sector in Baubau lowers than the primary sector in Southeast Sulawesi province. Rin value Component < Rij values component (0.09 <0.11) for secondary sector. This component showed that the secondary sector of Baubau higher than the secondary sector of Southeast Sulawesi province. Rin values component > Rij value component (0.09>0.08) for tertiary sector. This indicates that tertiary sector of Baubau lower than tertiary sector of Southeast province level. (Rate of sector growth in Province and district)

V. CONCLUSION

Based on the data analyzed, it can be concluded that:

1. There has been a change in the economic structure of Baubau City, Southeast Sulawesi. The pattern of changes in the economic structure that does not follow the normal pattern that is shifts from the primary sector to the secondary sector and then to the tertier sector. However, the economic structure of Baubau city shifted from the primary sector to the tertiary sector is not through the secondary sector.
2. The average contribution of primary sector since 2002 -2013, the percentages declined only by 9.65 percent, the secondary sector amounted to 25.54 percent and the tertiary sector amounted to 64.81%.
3. The contribution of secondary sector is lower than the tertiary sector, but this sector is competitive, therefore it is necessary for the government policy to encourage the development of tertiary sector

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