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Research paper

Contribution of Manufacturing Industry, Agribusiness Industry, Marine Industry Through People's Welfare to Economic Growth in Batam, Indonesia

Chablullah Wibisono[1]*

[1]Faculty Of Economics, University Of Batam, Riau Island, Indonesia
**Corresponding Author E-Mail: Chablullah.Wibisono@Univbatam.Ac.Id*

Abstract

Since 1972 the island of Batam designated as the industry, trade, tourism and over the ship. since it is located close to Singapore so that industry in Batam only manufacture, but in the development of all the mostly consumed comes from outside (import) and the broad sea area of 715 square km total area of 1,575 square kilometers along the sea. This study aims to know Contributions Industrial Manufacturing, Agribusiness Industry, Marine Industry Against Public Welfare Through Economic Growth Batam. In this study sampled is Indonesian Chamber were 200 respondents. The results of analysis by using SEM* assisted AMOS* Software version 22, Square Multiple Correlation. Thus it can be stated that the change of Economic Growth by contributions from the Industrial Manufacturing, Agribusiness Industry, Marine Industry 56.7%. Tus it can be stated that the People's Welfare changes by contributions from the Industrial Manufacturing, Agribusiness Industry, Marine Industry and Economic Growth of 56.7%. From this research, it is interesting to conclude: that manufacturing contributes Significantly to economic growth, but not to the people's welfare, while agribusiness and marine contribution members of the economic growth are not significant, but it Gives the agribusiness and marine public welfare significant contribution,

Keywords: *Manufacturing Industry; Agribusiness Industry; Marine Industry; Economic Growth and People's Welfare*

1. Introduction

1.1. Background

In 1970 Batam was developed as a logistical and operational base for the oil and gas industry by Pertamina. Then, based on Presidential Decree No. 41 In 1973, the construction of Batam entrusted to a government agency called the Batam Industrial Development Authority or now known as the Board of Batam (Batam BP). To implement the vision and mission to develop Batam, then built a variety of modern infrastructure of international standard as well as various other facilities, so it is expected to compete with similar areas in Asia Pacific. Significant progress has been achieved so far, as availability various business fields that can accommodate labor force coming from almost all regions of the country. So is the number of local and central reception from time to time continue to increase. It is not because of the increasingly widespread industrial activity, trade, control of the ship, and tourism. However, as a rapidly growing area, Batam also not immune from problems.For this reason, refinement development of Batam Island to complement the existing shortcomings. (Agency of Batam, 2015)
The number of poor people (the population is under the poverty line) in Riau Islands Province in March 2015 as many as 122 398 people (6.24 percent). When compared with the number of poor people in September 2014, amounting to 124 171 people (6.4%), in absolute terms decreased by 1,773 people, down from 0.16 %. (CPM Riau Islands, 2015) It is expected that with the development of Port and Free Trade Zone (KPBPB) Batam to reduce poverty in Batam in the Riau Islands in particular and to the whole. Economic stagnation or pseudo growth rates experienced by Batam should be a compelling reason to encourage the government to conduct a review and policy change so that various problems that arise can be addressed immediately. The realization of the concept of good governance is needed to create a situation conducive to the achievement of the purpose of the implementation of the Free Trade Zone. Make Batam manufacturing industry policy controls only two factors of production data six factors of production, namely land and labor only that can be supplied Batam, while capital, management, materials and technology controlled by foreign investors, consequently if other areas offer more attractive than foreign investors will quickly leave Batam. While 96% of Riau Islands region (including Batam) is the sea, yet maximized its potential. Goods that are consumed for residents in Batam imports from Thailand, Malaysia even Singapore. At the time of this study held Batam economic growth of only 2% in the year 2017 while previous years the average economic growth of 6%. Therefore it is necessary to consider Contributions Industrial Manufacturing, Agribusiness Industry, Marine Industry Against Public Welfare through Economic Growth In Batam-Indonesia Goods that are consumed for residents in Batam imports from Thailand, Malaysia even Singapore. At the time of this study held Batam economic growth of only 2% in the year 2017 while previous years the average economic growth of 6%. Therefore it is neces-

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1.2. Formulation of the Problem

From the description of the background of the problems can be formulated as follows:

1) Is there a manufacturing industry's contribution to economic growth?
2) Is there agribusiness industry's contribution to economic growth?
3) Is there a marine industry's contribution to economic growth?
4) Is there a manufacturing sector's contribution to the welfare of the people?
5) Is there agribusiness industry's contribution to the well-being of the citizens?
6) Is there a marine industry's contribution to the welfare of the people?
7) Is there economic growth contributed to the well-being of the citizens?

1.3. Research Purposes

1) To determine the contribution of manufacturing to economic growth
2) To determine the contribution of agribusiness industries to economic growth
3) To ascertain the contribution of the marine industry to economic growth
4) To ascertain the contribution of the manufacturing sector to the welfare of the people
5) To determine the contribution of agribusiness industries to the well-being of the people
6) To determine the contribution of marine industries towards people's welfare
7) To determine the contribution of economic growth to the people's welfare

2. Literature Review

2.1. Manufacturing Industry

During this time of economic development real give less attention to the development of economic dualism. Most economists often focus their attention on the problems of economic transition from primary agricultural economy to an economy dominated by the manufacturing sector through capital accumulation. In fact, the shift in production that takes place solely from agriculture to industry is no longer a major issue in developing countries. Typical problems faced by these countries now is how to develop sector-sectors that generate significant investment and intermediate goods by using advanced technologies. In the literature of development economics standards, the development process will always cause dualism. By definition, dualism is a situation in which there are several sectors (or regions) is great in an interconnected economy that uses modern technology, on the other hand, there are also areas (or areas) are small that use simple technology. Whereas during development policies that are still under consideration, this dualism is an annoying problem. Because of the duality will reflect imbalance inequality multidimensional and involving competing for social and economic problems which ramify. (Suman, 2006: 51-52) This duality is an annoying problem. Because of the duality will reflect imbalance inequality multidimensional and involving competing for social and economic problems which ramify. (Suman, 2006: 51-52)

It is the task of policy makers, to reduce and then eliminate the tendency to dualism implicitly. Dualism essentially urges us not underestimate the role of small industrial sectors. That is because the importance of this area refers to the unique characteristics include: First, it is labor-intensive; Second, most of the industries located in the countryside; Third, the industry is using technology that fits with the proportion of production factors and local conditions that exist in developing countries; Fourth, small industrial entrepreneurship is described as an alternative solution for local entrepreneurs; Fifth, small industry relies heavily on funding sources that lead from the savings business owners, in addition, be supported by the provision of informal loans from financial institutions or the area of other financial institutions. Contrary to the positive aspects contained in it, there is the criticism of the inability of the small industry to achieve economies of scale in production. As a consequence of this, they have high production costs despite low labor costs. So in the various branches of factories, small industries in the periphery, often life-based on government support and protective expensive (Pangestu, 1996). If we assume that the level of industrial technology progress is measured in the context of the ratio between capital and labor, then the increase in the proportion of capital and labor in an industry is a description of a process of improvement of the industrial, technological capabilities. Thus, according to the paradigm of dual-industry growth, the problems faced by Indonesia at this time is whether the growth of capital-intensive industry exceeded labor-intensive industries or vice versa. (Suman, 2006: 52)

Meanwhile, in an open economic order, the general market becomes more competitive. Cutting-edge technology typically introduced concurrently with the liberalization policy. Furthermore, what happens is, the competition and the latest technology will improve productivity and reduce the cost of industrial production through its comparative advantage. As a result, exports began to increase. Then, competition with foreign industry in the world market will increase the productivity of industrial exports back. Also, due to an extensive global market, economists scale can be achieved, which it will improve productivity (Fujita, 1994). In the end, the biggest problem Want to ask this study are: How does the structure of the Indonesian manufacturing sector in the period 1990 and 1995? By grouping the manufacturing sector into a group of capital-intensive industries and labor-intensive, then the author would like to know: Is there a duality in the manufacturing sector in Indonesia? In general, this study wants to describe the process of industrial development by using and applying the model, and input-output data are available. In particular, the object of the research is to test the following hypotheses:

a) With the structure of the manufacturing sector are such that it can obtain a picture that: Labor-intensive industries are light industry, while the sector is a capital-intensive heavy industry.
b) By analyzing the extent of the contribution of value-added, export, import and index backward-forward linkages of the respective industry then there is a duality in the manufacturing sector in Indonesia from the period 1990 -1995.

Answers will these hypotheses will have significant implications for the determination of which of the industrial development policies. Then the future will enable a more economic restructuring anticipated and managed. So in the end, a superior development strategy can mature in the context of a free market tendency. (Suma, 2006: 52). In fact, that happened in the city of Batam, manufacturing industry only benefits investors because of four factors of production under their control, namely, capital, materials, management, and technology, while Batam controls only two factors of production, namely: land and labor.

2.2. Agribusiness Industry

Local governments need information poverty by economic sectors to make investment policy based on debt, to accelerate poverty alleviation programs. When compared with the proportion of poor population by sectors of the industry, the ratio of capital expenditure in areas where most poor people are still the relatively small capital investment for agriculture which average only $ 1.41% over the period 2008-2016. Agriculture became the sector that is expected to reduce poverty, but the budget allocation for the agricultural sector is still minimal. (Permatasari, 2016: 28) The high level of poverty in rural development policy bias due to urban and industrial areas, while the budget allocation for the agricultural sector decreased dramatically (Sajogyo, 2002).

The proper economic development should be based on comparative advantage. Through a process of gradual and consistent development, developed comparative advantage into the competitive advantage. The competitive state is a state that can develop its comparative advantage into the competitive advantage. Indonesia has a comparative advantage in the diversity of biological resources. The economic activity that takes advantage of the natural resources in Indonesia is an agricultural business in the broadest sense. Therefore, Indonesia needs to develop a comparative advantage in agriculture into a competitive advantage through the development IndustriIndustrie that process agricultural products and develop agricultural upstream industrial industries, which overall are known as agribusiness system development. Agribusiness system is not equal to the agricultural sector. Agribusiness system is much wider than the agricultural sector is known so far. Agribusiness system consists of three major subsystems, namely: First, subsystem agribusiness upstream (upstream agribusiness) which is an economic activity that provides the means of production for agriculture, such as industry and trade agrochemicals (fertilizers, pesticides, etc.), industrial aggro-motif (machinery and equipment) and industrial seed/seedling. Second, farming subsystem (on-farm agribusiness) which is an economic activity that uses the means of production produced by agribusiness upstream subsystem to provide primary agricultural products. Included in this is an attempt subsystem farming food crops, horticultural crops business, the business of medicinal plants, plantation, fishery business, animal husbandry, and forestry. Third, AgriBisnis subsystems downstream (downstream agribusiness) in the form of economic activity processing primary agricultural products into processed products, both intermediate products and final products, as well as trading activity in the domestic market and international markets. Economic activities included in the subsystem Agri-Bisnis downstream, these include the food processing industry, manufacturing industry beverage industry fiber processing (wood, leather, rubber, silk, straw), the food service industry, pharmaceutical and cosmetic, and others along trade activities. Besides the above subsystems third, the fourth subsystem is required as part of the development of the agribusiness system. The fourth subsystem is known as the subsystems support. Subsystems support all activities providing services to agribusinesses, such as financial institutions, research and development, transportation agencies, educational institutions, and government agencies (fiscal and monetary policy, international trade, spatial policy, and other policies). (Saragih, 2000: 3-4)

2.3. Marine Industry

Theoretically marine economy has not become an individual assessment in Indonesia. Study of a marine economy is still micro and partial. Now the study of a marine economy in Indonesia is more dominant regarding environmental and natural resource economics. In the report "National Ocean Economic Program" published in the United States, Kildow et al. (2009) define the different marine and coastal economy. Stated that the coastal economy as all the economic activity that goes along the coastal areas. A coastal economic analysis revealed three themes, namely:

a) The size, the coastal economy in the United States has a significant portion of the business to be able to contribute to the economy of the country. Ironic compared with Indonesia as an archipelagic State but did not affect its coastal economy in the State's economy.
b) Position, the coastal economy is a major economic urban (urban) and dissemination activities along the coastal areas significantly impacted by the strength of urban areas, especially the spread of population and business away from cities.
c) Services, the coastal economy a major driver of the manufacturing industry in the United States, but now turned into a major producer services sector. Unlike Indonesia, the coastal economy let alone be a major driver of the service sector, the manufacturing sector alone would come far from the fire.

While the marine economy as an economic activity that is dependent on the sea and its products. It added that the maritime economy comes from the ocean (or large lakes) whose resources into input goods and services directly and indirectly in its primary economic activity:

a) Industry which implicit related to maritime activities or
b) Partially related to marine something located on the border marked by the shoreline (a shore-adjacent zip code)

Marine economy is an economic activity that takes place in coastal areas or oceans, and economic activities in the field of land use Natural Resources and environmental services derived from coastal regions or oceans to produce commodities (goods and services) needed people human (Dahuri, 2003)

2.4. Economic Growth

Partial investment also has a positive and significant effect on economic growth in Indonesia. The increase in investment will trigger an increase in economic growth due to the increase in expenditures indicate the occurrence of the increase in capital investment or capital formation. The increase in investment or capital formation would lead to greater production of goods and services in the economy. Increased production of these products and services will result in higher economic growth. Conversely, if there is a decrease in investment, GDP will also decrease due to a decline in investments indicate the occurrence of a drop in investment or capital formation. The reduction in investment or capital formation would lead to a lower economic production of goods and services. The decline in the manufacture of goods and services will result in the decrease in the economic growth. This is consistent with the theory and Nourdhous Samuelson (2004), the investment is an important thing in building the economy because it is needed as an additional factor in the increase in the production process. Furthermore, the partial government spending significant and positive impact on economic growth in Indonesia. An increase in public expenditure, for example for the provision or improvement of the infrastructure of the production process of goods and services, will be more smoothly. This will lead to an increase in the manufacture of products and services. Increased production of these goods and services will result in greater economic growth. Vice versa, if government spending decreased so that the problem can not be solved infrastructure will occur in the production process of goods and services become obstructed. This will have an impact on the decline in output of goods and services. The drop in the manufacture of products and services will lead to a decrease in the economic growth. This is consistent with the theory Mankiw (2006) and Fisher (2008), which means that government spending is a function of economic growth. Likewise, with net exports, net exports also have a significant and positive impact on economic growth in Indonesia. When the export has increased the production of goods and services will also be increased due to increased net exports indicates the demand for goods and services abroad is greater than the demand for foreign goods in the country. Therefore, the economy will increase the total production of goods and services. Increased production of these products and services will lead to greater economic growth. Conversely, when net exports

declined due to a decrease in demand for goods and services abroad, to allow imports higher than exports and this will result in a reduction in the production of goods and services. The decline in the manufacture of goods and services led to a decrease in the economic growth. This is in line with (Ernita, 2013: 188) the economy will increase the amount of production of goods and services. Increased production of these products and services will lead to greater economic growth. Conversely, when net exports declined due to a decrease in demand for goods and services abroad, to allow imports larger than exports and this will result in a reduction in the production of goods and services. The decline in the manufacture of goods and services led to a decrease in the economic growth. This is in line with (Ernita, 2013: 188) the economy will increase the amount of production of goods and services. Increased production of these products and services will lead to greater economic growth. Conversely, when net exports declined due to a decrease in demand for goods and services abroad, to allow imports higher than exports and this will result in a reduction in the production of goods and services. The decline in the manufacture of goods and services led to a decrease in the economic growth. This would be in line with (Ernita, 2013: 188) if net exports declined due to a reduction in demand for goods and services abroad, to allow imports greater than exports and this will result in a decrease in the production of goods and services. The decline in the manufacture of goods and services led to a reduction in the economic growth. This would be in line with (Ernita, 2013: 188) if net exports declined due to a decrease in demand for goods and services abroad, to allow imports greater than exports and this will result in a reduction in the production of goods and services. The decline in the manufacture of goods and services led to a decrease in the economic growth. This is in line with (Ernita, 2013: 188)

2.5. People Welfare

Theory of a welfare state (welfare state) has been introduced by Spicker (Suharto, 2005) which defines the welfare state as a system of social protection that gives a greater role to the state (government) to allocate a portion of public funds to ensure the basic needs of its citizens. The welfare state is intended to provide social services for the whole population, as well as and wherever possible. The welfare state seeks to integrate systems and deliver service network resources that can maintain and improve the well-being of citizens in a fair and sustainable. That is, that the welfare state is the existence of a state, that the state government was held responsible for guaranteeing minimum protection standards for every citizen. The concept of the welfare state is closely related to social policy (social policy) which in many countries include strategies and the government's efforts in improving the welfare of its citizens, in particular through social protection (social welfare) which include social security either in the form of welfare and social insurance, as well as social safety nets (social security nets) .Sekurang least five major areas called Spicker to explain the concept of well-being, namely: health, education, real estate, social security, and social work. The term well-being or welfare can have four meanings, namely: (1) In general terms, prosperous pointed to the right state of the human condition, in which people in the welfare state, in good health, and peace; (2) In a review of the economy, prosperity is always associated with profit or material benefit (the size of the element) as a function of social welfare (formative and substantive could mean economic prosperity or the economic well-being); (3) In a review of social policy, social welfare refers to the range of services to meet the needs of the community. This is a term used to the idea of the welfare state (welfare state); (4) In other reviews (such as policy phenomenon in developed countries like the United States), prosperous pointing to the financial aspects are paid by the government to people who need financial assistance, but can not work; or that the state receives income to meet basic needs is not enough or not worthy humanely; or the amount paid is usually well below the poverty line; or it could be because it has special conditions, such as evidence of looking for a job (unemployed); or other conditions, such as an inability or an obligation to provide for the family or child care (which prevent it to be / work), because in some cases the beneficiary countries are required to work, known as workfare. (Suryono, 2014: 99) such as an inability or an obligation to provide for the family or child care (which prevent it to be / work), because in some cases the beneficiary countries are required to work, known as workfare.(Suryono, 2014: 99) such as an inability or an obligation to provide for the family or child care (which prevent it to be / work), because in some cases the beneficiary countries are required to work, known as workfare. (Suryono, 2014: 99)

Changes social development does not only positive, but can also be negative. Therefore, it is this which has always encouraged the emergence of attention and thought to the importance of public policy in guiding the development activities. For example, several developing countries including Indonesia, unemployment, poverty, social inequality, scarcity of social services is a major social problem since the beginning until now. In fact there is a tendency decrease in living standards for a variety of social changes in line with the process of transition from an agrarian society to an industrial society. While conventional social problems such as poverty, ignorance and backwardness are still unsolved. Contemporary social issues, such as human trafficking, unemployment, deviant behavior, delinquency, and the exploitation of children coloring phenomenon appears increasingly modern society. Therefore, in the context of national development, public policy is a tool, mechanisms and systems that can steer and translate development objectives. Specifically, regarding the public policies oriented to the achievement of the objectives of social welfare, it must be interpreted in two fundamental sense, namely: the well-being of the people solve problems and meet social needs. So that the flow of public policy in the dimension of people's welfare objectives are: (1) identify and define the purpose of public welfare; (2) Solving the problem of people's health; (3) To formulate public policies for the well-being of the people; and, (4) Addressing the social needs as a whole. ,

2.6. Framework of Thinking

The conceptual framework of this research using a survey method, which uses a technique correlational research for this study attempted to investigate causal relationships between some of the variables. In this study, the variables can be divided into independent variables (independent variables) are variables that affect, consisting of (X1)Manufacturing industries, (X2) Agribusiness industry, (X3) Marine Industries. Another variable is the dependent variable (dependent variable) is the variable that is affected or which become due to their independent variables. In this study, there is two dependent variable is the intermediary variable (intervening variable) is (Y) Economic Growth, and the dependent variable (dependent variable) is (Z) for People's Welfare, each variable has five reliable indicators of influence.

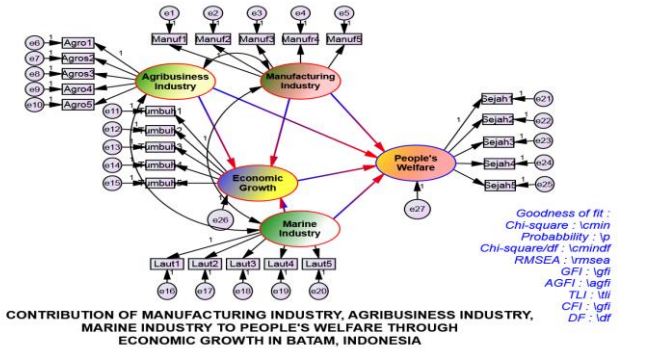


Fig. 1: Research Methods

2.7. Hypothesis

Based on the formulation of the problem, the theoretical basis and framework of thinking can be arranged hypothesis as follows:

1) There is a manufacturing industry's contribution to economic growth
2) There agribusiness industry's contribution to economic growth
3) There is a marine industry's contribution to economic growth
4) There are industrial sector contribution to the welfare of the people
5) There agribusiness industry's contribution to the well-being of the people
6) There is a marine industry's contribution to the well-being of the people
7) There economic growth contributed to the well-being of the citizens?

3. Methodology

3.1. Population and Sample

3.1.1 .Population

The population is a collection of the whole object to be measured in the study (Cooper and Schindler, 2003: 179). The people in this research are all employees within the Member Indonesian Chamber of the reasons that always interact with the investment; the population number is as many as 400 people. The Data Obtained are determined based on the theory that if the population is less than 100, then it is better to be taken all, but if a large number of subjects or more than 100 can be considered between 10-15% or 10-25% of the population. The sampling technique used in the category of non-probability sampling (Black and Champion, 2001: 233; Cooper and Schindler, 2003: 198). According to the characteristics, samples required, that is all structural employees, the technique of non-probability sampling technique selected is judgmental (purposive). This method is chosen to Ensure that only the samples that have Certain elements that have been established by Researchers who will be taken as an example (Black and Champion, 2001: 264). The population of this study was made from Members of the Indonesian Chamber of Batam.

3.1.2. Sample

The sample is an element of the population selected to represent the population in the research (Cooper and Schindler, 2003: 82). In this study, the sample size adapted to the analysis, the model used is Structural Equation Model (SEM). In this regard, the sample size for SEM used the models estimates the maximum likelihood estimation (MLE) is 100-200 samples (Hair et al., 1998: 605; Ghozali, 2004: 17), or as much as 5-10 times the number of parameters estimated (Ferdinand, 2000: 44). In this research the number of respondents who Obtained 400 respondents. In this study, the sample was calculated using the Solvin received 200 respondents:

$$n = \frac{400}{1+(400x0{,}05^2)} \qquad n = \frac{N}{1+N(e)^2}$$

n = 200 respondents

3.1.3. Research Instruments

The main instrument in this research was a questionnaire. Variable measurement is done by using the Likert scale. Measurement procedure as follows:

1. Respondents were asked to answer the common questions that will be used as the basis of Whether the respondents included in the criteria or not.
2. Respondents were asked to agree or disagree with the statement filed by the researcher's perception of each defendant. The answer consists of five options items, namely: Strongly Disagree (STS), Disagree (TS), Doubtful (RR), Agree (S), and Strongly Agree (SS).
3. Scoring. To answer of Strongly Agree (SS) is assigned the value 5, and so on down to the answer of Strongly Disagree (STS) is given a score of 1.

3.2. Data Collection Procedures

The Data used in the process of collecting the data in this research consisted of primary the data and secondary data. Primary Data is the data Obtained directly from the object of research items, namely by sending questionnaires directly to potential respondents.Data score of those surveyed' answers to any further processed with statistical indicators Full Model Structural Equation Modeling (SEM*) using AMOS software for Windows version 22.0 was Obtained display like the image processing results Structural Equation Modeling (SEM) following.

H1: $Y = \gamma_{y.x1} X1 + e1$, → Direct Effects X1 to Y,
H2: $Y = \gamma$ y.x2X2 + e1, → Direct Effects X2 to Y,
H3: $Y = \gamma_{y.x3} X3 + e1$, → Direct Effects X3 to Y,
H4: $Z = \gamma_{z.x1} X1 + e2$, → Direct Effects X1 to Z,
H5: $Z = \gamma_{z.x2} X2 + e2$, → Direct Effects X2 to Z,
H6: $Z = \gamma_{z.x3} X3 + e2$, → Direct Effects X3 to Z,
H7: $Z = \beta$ ZY Y1 + e2, → Direct Effects Y to Z

3.3. Data Analysis Method

Data analysis was performed using Structural Equation Model (SEM). The software used for the structural analysis is AMOS 22. There are seven steps involved in modeling SEM, namely:

1. Model-based development theory
2. Making the flow diagram (path diagram)
3. Convert flowchart into a series of structural equation
4. Selection of the input matrix and estimation techniques of models built
5. Assess possible problems of identification
6. Evaluation criteria for goodness of fit
7. Interpretation and modification of the model

4. Results and findings

4.1. Object Research

Batam is a city with a very strategic location. Besides being in the international shipping lanes, the city has a very close distance and is directly adjacent to Singapore and Malaysia, Asplanned townBatam is one of the fastest growing cities in Indonesia. When it was built in the 1970s by the Batam Authority (currently named BP Batam), The city is only occupied about 6,000 residents, and within 40 years the population of Batam grows up to 158-fold.Batam city's economic growth higher than the national economic growth rate make this area a mainstay for the driver of national economic growth and the Riau Islands province, but the time of the study of economic growth Batam slid off 6.2% to about 2%, it is necessary conducted research, why? Various sectors of the economic drivers include the communications, electricity, water and gas, banking sector, the industrial sector and over the ship, trade and services sector is an economic pulse city of Batam, which is not only the public consumption of Batam and Indonesia but also an export commodity for other countries , The existence of economic activity in the city is also in order to boost employment and social welfare. Batam City Government as an implementer of Batam together DPR area of Batam, as well as the participation of Batam Authority Board in furthering the development, is committed to promoting investment and economic growth Batam, this is evidenced by the memorandum of the three agencies, which then Batam is expected to create sustainable develop-

ment. Batam, Bintan, and Karimun along with now achieved status as a Special Economic Zone (SEZ). By this is supposed to increase investment in Batam, which is ultimately intended to improve social welfare. (is committed to promoting investment and economic growth in Batam, this is evidenced by the memorandum of the three agencies, which in turn is expected to create the sustainable development of Batam City. Batam, Bintan, and Karimun along with now achieved status as a Special Economic Zone (SEZ). By this is expected to increase investment in Batam, which is ultimately intended to improve social welfare. (is committed to promoting investment and economic growth in Batam, this is evidenced by the memorandum of the three agencies, which in turn is expected to create the sustainable development of Batam City. Batam, Bintan, and Karimun along with now achieved status as a Special Economic Zone (SEZ). By this is expected to increase investment in Batam, which is ultimately intended to improve social welfare. (By this is projected to increase investment in Batam, which is ultimately designed to improve social welfare. (By this is expected to increase investment in Batam, which is ultimately intended to improve social welfare. (Wikipedia, 2017)

4.2. Overview of Research

In accordance with the purpose of research to find out Industrial Manufacturing, Industrial Agribusiness, Maritime Industry, Economic Growth and Social Welfare, coupled with the hypothesis formulated, the data was analyzed using Structural Equation Modeling (Structural Equation Modeling = SEM*) which is a set of statistical techniques that allow testing of a series of relationships relatively complicated simultaneously (Ferdinand, 2002; Solimun, 2004). Based on the three tables mentioned above can be analyzed determinations:

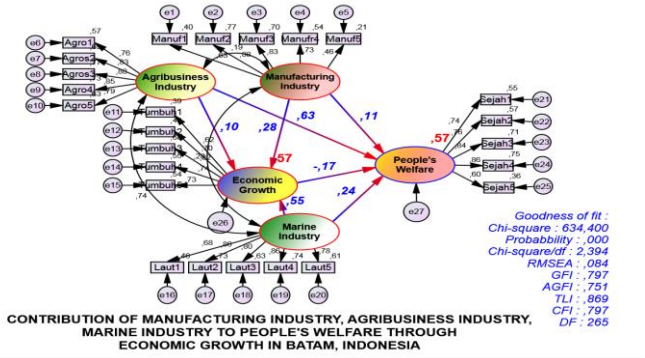


Fig. 2: Full Model

Table 1: Regression Weights: (Group number 1 - Default model)

			estimate	SE	CR	P	Label
ECON	←	MANF	, 181	, 047	3.866	***	par_5
ECON	←	AGRO	, 062	, 063	, 983	, 326	par_23
ECON	←	SEA	,530	, 115	4.591	***	par_30
Welf	←	MANF	, 097	, 059	1,630	, 103	par_1
Welf	←	ECON	-, 223	, 138	-1.616	, 106	par_2
Welf	←	SEA	, 307	, 151	2,039	, 041	par_3
Welf	←	AGRO	, 541	, 093	5.797	***	par_4

Table 2: Standardized Regression Weights: (Group number 1 - Default model)

			estimate
ECON	←	MANF	, 283
ECON	←	AGRO	, 095
ECON	←	SEA	, 550
Welf	←	MANF	, 113
Welf	←	ECON	-, 167
Welf	←	SEA	, 239
Welf	←	AGRO	, 629

Table 3: Squared Multiple Correlations: (Group number 1 - Default model)

			estimate
ECON			, 567
Welf			, 567

Of table Analysis of information obtained Goodness of Fit 2 right and two marginal, the model considered meeting conditions. From the results of the SEM analysis using AMOS software's version 22, was obtained as follows:

Table 4: Analysis Goodness of Fit

Goodness of Fit Index	Cut-Off Value	Model Results	information
Chi-square	*Expected To Be Small*	*634*	*Good*
Relative Chi-square	*≤ 3:00*	*2, 394*	*Good*
probability	*> 0.05*	*0,00*	*Not Good*
RMSEA	*≤ 0:08*	*0,084*	*Marginal*
GFI	*≥ 0.90*	*0.797*	*Not Good*
AGFI	*≥ 0.90*	*0,751*	*Not Good*
CFI	*≥ 0.95*	*.869*	*Not Good*
TLI	*≥ 0.95*	*.869*	*Marginal*

4.3. Discussion

Structural Equation Model Analysis

a) Contributions variable to variable Manufacturing Industry Growth has standardized estimate (regression weight) equal to, 283 with Cr (Critical ratio = identical to the value t-test) of 3.866 on a probability = 3.866 *** CR value ≥ 2.00 and Probability = *** ≤ 0.05 indicates that manufacturing variable Contributions to Economic Growth variable is significantly positive. Industry de facto manufacturing gave a significant economic growth, but economic growth will only be enjoyed by the investor, while people just enjoy multiplayer effect only.

b) Contributions variable to variable Agribusiness Industry Growth has standardized estimate (regression weight) equal to, 095 with Cr (Critical ratio = identical to the value t count) amounted, on probability = 983, CR 326 Value, 983 ≤ 2.00 and Probability =, 326 ≥ 0.05 indicates that the Agribusiness Industry Contributions variable to variable positive economic growth is not significant. These findings prove that agribusiness has not made an excellent choice in building economic growth, but the island has a material agribusiness agro industry, at least three factors of production are owned by Batam

c) Marine Industries variable contribution to variable economic growth has standardized estimate (regression weight) equal to, 550 with Cr (Critical ratio = identical to the value t-test) of CR on probability = 4.591 *** 4.591 CR value ≥ 2.00 and Probability = *** ≤ 0.05 indicates that the Maritime Industry Contributions variable to variable economic growth is significantly positive. During this time the potential of the marine industry has improved economic growth and improve people's welfare significantly, as the effect of 96% region sea in the Riau Islands.

d) Contributions variable to variable Manufacturing Industry Public Welfare has standardized estimate (regression weight) equal to, 113 with Cr (Critical ratio = identical to the value t-test) of 1,630 on probability =, 103 CR value of 1.630 ≤ 2.00 and Probability =, 103 ≥ 0.05 indicates that the Manufacturing Industry Contributions variable to variable active for People's Welfare is not significant. The input of the manufacturing industry significantly only enjoyed by investors who had 4 of the six factors industry and have not given the people's welfare significantly.

e) Economic Growth variable contribution to variable Public Welfare has standardized estimate (regression weight) of -, 167 with Cr (Critical ratio = identical to the value t count) equal to the probability = -1.616 CR 0,106 value ≤ 2.00 and Probability =, 106 ≥ 0.05 indicates that economic growth Contributions variable to variable negative Public Welfare is not significant. The contribution of economic growth to the

welfare of the people even raise consumer behavior for the community, because the effects of the capitalist economic system that is attached to the capital-intensive industry based manufacturer.

f) Contributions variable to variable Maritime Industry Public Welfare has standardized estimate (regression weight) equal to, 239 with Cr (Critical ratio = identical to the value t-test) of 2,039 on probability =, CR Value 2,039 041 ≥ 2.00 and Probability =, 041 ≤ 0.05 indicates that the Maritime Industry Contributions variable to variable economic growth is significantly positive. The contribution the marine industry has provided significant employment so that it can improve people's welfare.

g) Agribusiness Industry variable contribution to variable Public Welfare has standardized estimate (regression weight) equal to, 629 with Cr (Critical ratio = identical to the value t-test) of, 095 in probability =, 326 CR value ≥ 2.00 and 5.797 Probability = * ** ≤ 0.05 indicates that the Agribusiness Industry Contributions variable to variable Public Welfare is a significant positive. It is evident that the agribusiness industry even though its contribution to economic growth is not significant, but there will be meet agribusiness industry what the community needs.

h) Square Multiple Correlation for Economic Growth =, 567, for the People's Welfare =, 567 According to Ferdinand, (2002: 114) values Square Multiple Correlation for variables Economic Growth R2 =, 567 is identical to R2 in SPSS for, 567, a number of Contributions are the value of Square Multiple correlations for Economic Growth variable times 100% =, 567 x 100% = 56.7%. Thus it can be stated that the change of Economic Growth by contributions from the Industrial Manufacturing, Agribusiness Industry, Marine Industry 56.7%. For People's Welfare R2 =, then the amount of Contribution = 567, 567 x 100% = 56.7%. Thus it can be stated that the People's Welfare changes by contributions from the Industrial Manufacturing, Agribusiness Industry, Marine Industry and Economic Growth of 56.7%.

5. Conclusion

a) Contributions variable to variable Manufacturing Industry Growth has a significant positive.

b) Agribusiness Industry variable contribution to variable positive economic growth is not significant.

c) Marine Industries variable contribution to variable economic growth is significantly positive.

d) Manufacturing Industry variable contribution to the Public Welfare variable t is not significantly positive

e) Economic Growth variable contribution to the Public Welfare variable is not significantly negative

f) Marine Industries variable contribution to variable significant positive Public Welfare.

g) Agribusiness Industry variable contribution to the Public Welfare variable is significantly positive.

h) Square Multiple Correlation Economic Growth =, 567, for the People's Welfare =, 567 According to Ferdinand, (2002: 114) values Square Multiple Correlationuntuk variables Economic Growth R2 =, 567 is identical to R2 in SPSS for, 567, a number of Contributions are the value of Square Multiple Correlation to variable growth times 100% =, 567 x 100% = 56.7%.

References

[1]. Black, JA, & DJ Champion.(2001). 'Methods and problems of social research.' Bandung: RefikaAditama.

[2]. Board of Batam, (2015) 'History and Economic Development Batam Island,' the General Bureau of BP Batam, Batam

[3]. Cooper, R. Donald., And Pamela S. Schindler. (2003). Business research methods. Eight Edition. New York: Mc. Graw-Hill / Irwin.

[4]. Dahuri, Rokhmin (2011) Seminar: "Initiating Kepri as the National Center for Economic Growth Based Maritime" Province Government of Riau Islands, Tanjung Pinang

[5]. Ernita, Goddess (2013) 'Analysis of Economic Growth, Investment, and Consumption In Indonesia,' Journal of Economic Studies, January 2013, Vol. I, No. 02. (Suryono, Agus, 2014) "Public Policy for People's Welfare" Transparency Scientific Journal of Administrative Sciences Volume VI, No. 02, University of Brawijaya, Malang

[6]. Ferdinand, AT (2006).'Methods of management research.' Semarang: BP UNDIP

[7]. Husaini et al., (1996) 'SmallScale Enterprises Development in Indonesia,' in Mari Pangestu (ed), SmallScale Business Development and Competition Policy, CSIS

[8]. Rasmen, Adi, (2015), 'Free Structural Equation Modeling with AMOS version 22*', Undiknas Press, Denpasar

[9]. Pasaribu, B. (2006) 'Profile and Poverty Alleviation Programs in Indonesia. Paper presented at the Asian Regional Seminar on Poverty Alleviation ', held by AFPPD and IFAD. Hanoi, Vietnam.

[10]. Publishers Statistics Agency of Riau Islands, (2015) 'Poverty Data in Riau Islands,' Publisher BPS, Tanjungpinang

[11]. Permatasari, Nia at all, (2016) 'Regional Economic Development Planning Based Agriculture in the Context of Poverty Reduction in West Kalimantan,' Journal of Agribusiness Indonesia Vol 4 No 1, IPB Bogor

[12]. Publishers Statistics Agency of Riau Islands, (2015) 'Poverty Data in Riau Islands,' Publisher BPS, Tanjungpinang

[13]. Saragih, Bungaran (2000) 'Agribusiness As the cornerstone of Indonesia's Economic Development in the Era of New Millennium,' Journal of Development Studies, Community & Environment, Vol 2, 1,

[14]. Sajogyo (2002), 'Agriculture and Poverty,' Journal of Economics People.

[15]. Solimun, (2004) 'Public Lecture Material Preparation and Use of SEM* through AMOS* Operations In Research, Study Program Master in Management' UNDIKNAS Denpasar, Denpasar.

[16]. Suma, Agus (2006) 'The duality in the Manufacturing Sector Indonesia: A Hypothesis Test with Input-Output Analysis,' Journal of Management and Entrepreneurship, Vol.8, No. 1, Department of Economics, Faculty of Economics - Universitas Kristen Petra

[17]. Sugiyono, (2008).'Qualitative and Quantitative Research Methods R &D, Mold Fourth.' Publisher Alfabeta, Bandung

[18]. Wikipedia (2017) 'History and Development of Batam Island,' Wikipedia online

[19]. Yudhoyono, SB. (2004). 'Agriculture and Rural Development For Fighting Poverty and Unemployment: Analysis of the Fiscal Policy EkonomiPolitik' (dissertation). IEPIPB. Bogor.

[20]. Pangestu, M. (1996). *Small-scale business development and competition policy*: Centre for Strategic and International Studies.