



The Implementation of Harrod-Domar Economic Growth Model in North Sulawesi, Indonesia

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ABSTRACT

The study aimed to: Understand and analyze the poor's perceptions and attitude on poverty reduction programs, identify, elaborate, and analyze the term poor among the poor people and identify and analyze meaning and expectation on poverty reduction program.

This research applies developmental research method; the analysis model uses SEM (Structural Equation Modeling). Before applying this model, goodness of fit was conducted in order to find out whether this model can be accepted or not.

The model could achieve goodness of fit; therefore, all variables could follow hypothesis test. The research result showed the change in economic structures has direct significant influence on the government's stimulus and economic growth. Capital establishment also has direct insignificant effect on the government's stimulus. Capital establishment has significant influence to the economic growth and the socio-cultural influence does not have significant influence to the economic growth. These results indicate that the greater stimulus of the government signified by precise goals leads to better economic growth.

Key Words: Economic Growth, Government's Stimulus Policy

INTRODUCTION

The development of economic growth model coined by Harrod-Domar is intended for the advanced society; however, this model is also suitable with the condition of poor society. One underlying aspect to bear in mind regarding the economic policy which the government imposes is the fact that economic development does not merely depend on the quantity or mathematical calculation on the percentage of economic growth. The most important aspect is the quality improvement of the society. The government must set the focused goal and precise target in the effort to develop the economy of its people.

The economic growth refers to a quantitative measurement which describes the growth of an economy in a certain period with the comparison of the previous period (Sodono Sukirno, 2006). To strengthen the concept of growth, Arifin Bustanul (2006) states the economic growth should be able to maintain the price stability of primary goods, and to ensure the price on the level which suits the society's purchase ability. Harrod in Jhingan (2007) explains that the social capital grows in a steady speed, capital stock in the economic process will be fully achieved by the businessmen who wish to invest the savings in a potential circumstance.

The model of economic growth is an investment during the economic process which has double characteristics. First, it is able to provide income, and second, it increases indicator capacities which are arranged based on the desired development goals. The government's stimulus model policy in the effort to improve the economic growth is an alternative model to solve unemployment and poverty problems. The most realistic opinion to solve poverty, according to Emmy Hafid in Micro Credit Challenge (2007) is "affirmative action" which encourages the government to take a strict political policy instead of massive project such as 'green revolution' during the New Order through the massive agricultural project. Emmy explains that the government must pay meticulous attention on the poverty characteristics in the city and the suburban area.

The observed problems in the economic growth lead to some important questions related to the process of economic growth policy in Sulawesi Utara which include; (a) the growth process



is not supported by the adequate job opportunities, (b) the economic actors do not empower and take advantages of this conducive condition, (c) the unemployment rate remains high, (d) the development objectives do not cover the collective goals of society, (e) the existing economic growth does not satisfy the society, (f) the classical basic needs is less productive. The effort to improve the economic growth is stimulated the conducive investment era, the development of private sector supported by less strict regulation, the improvement of resources to facilitate ecotourism, and the regular involvement in international events. However, the reality shows that the change indicators have not shown the significant improvement. The analysis made by Harrod-Domar (1947) is still relevant and questions 'requirements or conditions which must be fostered in the economy to ensure annual production capacity which is expected to grow in every year as the result of capital investment. These requirements and conditions must be applicable in the economic growth. Therefore, the development of the government's stimulus model policy adapted from Harrod-Domar Model must be suitable with condition and environment in Sulawesi Utara. This development serves as the alternative solution to overcome the problem of employment.

THEORETICAL FRAMEWORK

The Government's Stimulus Policy and its Relationship with Harrod Domar Growth Model

Agus Herta Sumarto (2010) explains that the economic development is greatly influenced by the aggregate demands from the society. The increasing number of people or labor leads to the greater potential which one area or country has. The alternative resources are more abundant; therefore, the government which holds the authority for the development also has more alternatives.

The stimulus of the government policy is a tool which serves as one of the government's functions to develop the economy of the society as the biggest user of public goods when the private goods are not available. Bambang Brodjonegoro (2011) states that stimulus provided by the government is 'fresh money' which is supported by a policy. The government stipulates the stimulus policy to anticipate the impact of economic crisis in 2012. The stimulus policy consists of the combination of fresh monet and a set of policy (The Ministry of Financial, 2012). This stimulus policy is issued to create the source of domestic economic growth. Bambang Brodjonegoro argues that the stimulus policy should have the direct influence.

The previous studies provide the clear argument that the stimulus policy is inevitably important in the model of economic growth. The policy should be supported by the development of Harrod-Domar Model which comprehensively measures the activities of economic development in particular area. It is expected that the development model accelerates the national economic development until reaching 6% per year. Thus, the national economic development can be measured by using fiscal and monetary stimulus in order to examine its increase or decrease.

Harrod Growth Model is calculated based on G (actual growth rate) and G_n (Natural Growth Rate) (Jhingan, 2007). Thus, the growth model is formulated into several equations. Actual growth rate is formulated as $G=S$, and Warranted growth rate is formulated as $G_w = S$. Meanwhile, natural growth rate is formulated as $G_n = S$. G , G_w , G_n refer to the rate of growth of output in a given period of time, and (S) refers to the ratio of saving to income. Harrod theory is explored by long-run and undisrupted equilibrium growth. Warranted growth rate determines the full capacity growth for the economic development, and (G_n) of actual capital must be persistently in proposition of capital goods in order to achieve the welfare optimum.

The condition is possible to occur because Harrod in his growth theory which has been developed since 1947 states that once G is disrupted, it falls into dis-equilibrium thereby leading to the divergence. He argues that 'the equilibrium' between G and G_w is the 'full equilibrium'. It means that the government carries the core responsibility to issue policy which maintains the equilibrium of G and G_w as the effort to attain long-run stability. Therefore, his theory also upholds the notion of natural growth. The theory of Harrod-Domar both emphasizes on full employment growth rate. However, Domar Model only applies one growth rate meanwhile Harrod theory involves three growth rate. Harrod builds the model of output-marginal ratio while Domar does not use this model. Another difference lies on the use of accelerator in Harrod theory while Domar uses multiplier.

The development of the government's stimulus policy based on Harrod-Domar economic growth model is inevitable necessity and need to measure economic growth in an area. The local government is assumed to have negative role or to instill an obstacle for the economic development of poor society (Didik, 2001). This fact shows that the local governance only focuses on the tax and retribution enforcement as the key factor in developing its area. As a result, the society must pay an astronomical and less economic tax. It leads to the disadvantage for the economic actors including Small Middle Enterprises which rely on the stimulus policy of the

government since they stop their economic activities. This paradigm needs to be changed and reconstructed.

By emphasizing on the economic growth in Sulawesi Utara, aspects in regulation serve as the determinants to measure the economic stability. Thus, the preliminary study has been conducted in order to support the research on the development of stimulus policy model within the framework of macro economic policy. It focuses on the development of small and middle enterprises in which the policy is expected to influence the demand for the product and service as well as to improve their accessibility to the market. The final goal is to accelerate the development of their business activity. The policies must be advantageous for the development of Small and Middle enterprises in Sulawesi Utara. Training programs can be initiated to increase entrepreneurship culture among the owners of these small and middle enterprises.

The result of study and evaluation comes to the finding that the policies and regulations are primarily important to attain success and sustainable assistance to support the programs of SMEs (those policies still cover retailers, the sellers of handphone, shoes, groceries, mixed materials, and home appliances). By providing entrepreneurship environment, SMEs can develop and grow. SMEs give sustainable contribution and influence because the regulation established by the government actively support their programs such as to give full access for loan and financial assistance, to initiate management training, to provide better technology, to assist marketing and to provide facilities (A. Tolentino, 2000).

Herta (2010) argues that the economic development of a nation as the institutional organization must be able to establish the policies which stimulate the economic development. The regulation also focuses the equal distribution of the income. This argument has an implication on the economic development which favors the poor society. The ultimate objective is to significantly decrease the poverty rate.

The Economic Growth and its Relationship with the relevant Resources.

Lewis (1957) argues that most developing countries have the abundant sources of labor, but these countries face the capital shortage and the ineffective use of the abundant land they have. These conditions refer to the effect of the cycle of poverty traps on the economic development. The cycle of poverty trap, well known also as poverty trap, is defined as a set of influencing factors or events by which poverty is likely to persist in one country. It means that the country becomes impoverish and faces enormous obstacles to escape the poverty and achieve higher development level. This theory is commonly associated with Nurkse, a leading economist, who becomes the pioneer in the research on the capital establishment in the developing countries. Nurkse explains that his theory serves as the underlying basis to implement the strategy of balance development in developing countries.

In the theory of the cycle of poverty trap, Nurkse puts an emphasis on the core issue that poverty does not only result from the absence of development in the past. Poverty also becomes the main obstacle for the development in a nation in the future. Nurkse discloses that 'a nation becomes impoverish because it is a poor country'. He also underlines that the essence in the cycle of poverty trap lies on the factors which hamper this country to raise itself from the impoverished condition and to attain higher capital establishment. To acquire this capital, it needs saving rate and stimulus to capital investment. In the developing countries, those two factors do not support to acquire high capital establishment. Nurkse mentions capital offer and capital demand as the two poverty traps which hamper the country to escape from the persistent underdevelopment and attain higher development rate.

Three Models of Poverty Traps

From the capital offer aspect, the cycle of poverty trap can be explained as follows: Low income of society due to the low productivity leads to low saving capability. The ultimate effect is low capital establishment. The latter condition is the main determinant factor leading to the lack of capital goods in a country. Thus, productivity rate remains low. From the aspect of capital demand, the cycle of poverty trap has a different pattern. The poor countries have low stimulus for capital investment due to the limited market coverage for certain goods. The main reason for the limited market coverage lies on the low income. It is also argued that low income results from low productivity as the impact of the inadequate capital investment in the past. It is believed that the low stimulus for capital investment plays an important role in the inadequate capital investment.

Another part in the analysis of Nurkse states that the improvement of capital establishment does not only result from the vicious cycle of poverty traps but also from international demonstration effect. This latter term refers to the tendency to imitate consumption pattern of the society in the developed countries. The developing countries tend to import and consume industrial goods having better quality than those produced by local producers. The

higher spending will decrease savings by which the developing countries use for the capital investment to improve their capability in the national production. If this condition occurs, it can be said that international demonstration effect worsens the cycle of poverty traps which the developing countries face.

In addition to these two cycles of poverty trap, Meier and Baldwin introduce another cycle of poverty trap. This poverty trap rises from the intertwined relationship between the condition of underdeveloped and primitive society and pristine natural resources. To make a good use of natural resources, a nation must have skillful human resources to manage and initiate various economic activities. In developing countries, natural resources are treasures which have not been fully developed and explored due to many factors such as relatively low educational background of the society, the inadequate number of skillful human resources and the restricted mobilization of the resources. Some developing countries undergo the phenomena in which the socioeconomic condition seems to be less developed. As a result, it decreases the number of resources, so they are unable to utilize the natural resources. The subsequent effect of the less developed natural resources is the low-pace society development and the limited capability to improve the knowledge and skill of the society.

Based on the analysis on the factors which obstruct the development in a country, it can be summed up that the theory of the cycle of poverty traps generally underlines three aspects: (i) the inability to provide savings; (ii) the insufficient stimulus for capital investment; and (iii) the low level of education, knowledge and skills of the society are the factors which hamper the capital establishment and economic development.

RESEARCH METHOD

Research Design

This research aims to develop the economy development approach model in three sectors which are: consumer household, producer household, and government intervention through stimulus model policy in economy growth analysis as demand and need to decrease the poverty rate that based on environment resource at North Sulawesi.

Research Sample

The samples of this research are community in coast and slum area who receive the stimulus help from North Sulawesi government and also the receiver of government stimulus policy who received help in 2009 and 2010 and they consist of: (1) farmer, (2) street vendor, (3) fishing laborer, (4) construction worker, (5) scavenger, (6) city janitor. The detailed samples are:

The sample is taken by using cluster sample method which each unit is categorized into cluster and the amount of sample is taken with purposive sampling. The sample grouping is based on following criteria:

1. The receiver of government policy stimulus is grouped for: farmer, street vendor, construction worker, fishing laborer, scavenger, and janitor.
2. Each group of stimulus receiver is allocated in regency or city that is chosen with receiver criteria of BLT, BOS, fishing gear, and farming tools. The regencies or cities that are chosen are: Manado, Tomohon, Minahasa Raya, Bolaang Mongondow Raya, and Bitung.

The sample measurement is based on data analysis that is used on the submitted hypothesis. Because this research uses SEM with path analysis model, so the sample is determined by the smallest correlation between variables that are in the path. Because of that the Cochran formula (1969) in Al Rasyid (1994) is used.

By taking the trust value level is for $\alpha = 0,05$ (one way test), power test $\beta = 0,95$, and the P_{xixj} value for $(p) = 0,20$; so the minimum result in the third interactive is for 265 and it is rounded into 300. From the 300 minimum sample units are allocated equally into trading business sub sectors.

Data Type and Resources

The data resources that are submitted for this research are primary and secondary data. The primary data in this research is submitted with questionnaire. The questionnaire that is used is interval scale which is a list of statement and question that is signed with answer line that shows certain interval. For example the interval measurement is from 1 until 5.

The Measurement and Data Analysis Technique

This research uses interval data measurement scale of interval data. For measuring the scale, this research uses Likert scale with five intervals (5,4,3,2,1). The highest score is 5, the lowest score is 1 and the middle score is 3. The analysis model that is used in this research is Structural Equation Modeling (SEM) that is aimed for revealing the causal relation between latent

variable that is in structural equation, measurement model test, the whole model test and the structural model test which is helped by Amos 7.0 program package (Analysis of Moment Structure). Before the SEM analysis is done, the goodness of fit test was done to test whether the model can be accepted or refused.

1. Chi-square statistic (X^2) is a fundamental tool test to test whether there are differences between population covariance sample. The model that is tested will be viewed well and satisfying if the chi square is low. The smaller the X^2 value, the better the model and it can be accepted based on the probability with cut off for $p > 0,05$ atau $p > 0,10$.
2. Probablity significance is the significant test toward the matrix covariance differences data with covariance matrix that indicates if the model can be accepted.
3. Relative chi square is the minimum sample disparance (CMIN) function which is divided by degree of freedom that will result CMIN/DF and generally it is used as the one of indicators to measure the fit level of certain model. The X^2 reactive value which is less than 2.0 or even less than 3.0 is the indication of fit acceptable between model and data.
4. The root mean square error of approximation (RMSEA) is an index that can be used to compesante the statistic chi-square in a big sample. The smaller value of RMSEA or same as 0,08 is an index for model which shows certain close fit that based on degree of freedom to be accepted.
5. Comparative Fit Index (CFI) is an index to measure the acceptance level of a model. The excellence of this index is this is not influenced by the sample. The interval value of this index is from 0-1. If the value is close to 1, it indicates the highest fit level or a very good fit level.
6. Tucker Lewis Index (TLI) is an alternative of incremental fit index that compares a model that is being tested toward baseline. Next, the validity and the reliability are tested.

RESULT AND DISCUSSION

In the SEM analysis, there are two main components, namely, measurement model and structural model. This discussion explains three main measurement models. First, the analysis covers the value of loading factor or regression weight expressed with the symbol of lamda (Ferdinand, 2002:79). The second focuses on the level of construct significance. The third part is construct realibility. The measurement model has the significance level (less than 5% or 0,05) and the value of construct realibility (ρ_n) $> 0,70$. Variable is stated as valid undimensional if the value of nilai Goodness of Fit Index (GFI) $>0,90$.

Measurement model will use confirmatory factor analysis (CFA) to figure out the accuracy of indicators used to measure construct. The analysis also uses software AMOS 4.01 and the method of Maximum Likelihood Estimation (MLE). The accuracy of indicators used to measure certain construct can be traced by applying the analysis of convergent validity or construct discriminant validity.

The first analysis in this research is the conctruct validity analysis. The result of the conctruct validity analysis enables the researcher to find out any estimation which exceeds the established limit. The evaluation on the value which exceeds the limit will be figured out from the value of goodness of fit index which has not reasched the standard fit model. If the analysis shows the estimation which exceeds the limit, the indicator of the variable wil be discriminated. The next step is to conduct re-estimation. After eliminating indicator in the estimation process, the value of goodness of fit index and some parameters show fit; thus, the model has met the requirements. The theoretical framework underlying this argument is the opinion of Kelloway (1998). He states that the indicator which exceeds the limit must be eliminated to attain goodness of fit. Hair et.al (1995, 639) explain that the result of estimation which is higher than the limit having been set is usually presented in the form of : negative error variant or insignificant error variant from the indicator used; coefficient which exceeds or almost reaches 1; enormous error standard; and the significance of CR $> 0,05$.

Therefore, it is necessary to perform another model specification on the model resulting in items or indicators having been previously explained. Besides, this step is important to improve the correlation criteria of goodness of fit based on the index modification. Model specification is accepted if the correlation between model and data from at least 2 criteria of goodness of fit test can be proven.

Tabel 1. The Result of Laoding Factor Estimation for Economic Structural Change Variable

| Indicators | (Loading Faktor) | CR | P | Explanation. |
|---------------------------------|------------------|-------|-------|--------------|
| Job Opportunity ($X_{1.1}$) | 1,000 | | 0,000 | Significant |
| Labor Empowerment ($X_{1.2}$) | 1,021 | 9,460 | 0,000 | Significant |

| | | | | |
|---|-------|-------|-------|-------------|
| Resources Empowerment (X _{1.3}) | 0,653 | 8,013 | 0,000 | Significant |
| Technology Advance (X _{1.4}) | 0,749 | 7,479 | 0,000 | Significant |

Source: The analysis of the primary data.

Table 1 shows that all indicators have probability less than 0,05. The analysis result shows that 4 indicators serve as the constructs which constitute the economic structure change variable; those are job opportunity, labor productivity, resources empowerment and technology advance. The variable of capital establishment consists of 4 indicators and the result of Confirmatory Factor Analysis is presented below:

Table 2. The Result of Loading Factor Estimation for Capital Establishment Variable

| Indicators | (Loading Factor) | CR | P | Explanation. |
|---|------------------|-------|-------|--------------|
| The increase in Saving Volume (X _{2.1}) | 1,354 | 7,703 | 0,000 | Significant |
| The improvement of skills and knowledge (X _{2.2}) | 1,296 | 8.598 | 0,000 | Significant |
| Society Loan (X _{2.3}) | 0,912 | 5,897 | 0,000 | Significant |
| Restriction on the Imported Goods (X _{2.4}) | 1,000 | | 0,000 | Significant |

Source: The analysis of the primary data.

Table 2 shows that all indicators have probability less than 0,05. The analysis result shows that 4 indicators serve as the constructs which constitute the capital establishment variable. The analysis result shows that the most dominant loading factor estimation is the increase of saving volume. The variable of socioeconomic establishment consists of 4 indicators and the result of Confirmatory Factor Analysis is presented in Table 3

Table 3. The Result of Loading Factor Estimation for SocioEconomic Establishment Variable.

| Indicators | (Loading Factor) | CR | P | Explanation. | Reliabilitywith Chronbarch Alpha |
|---|------------------|-------|-------|--------------|----------------------------------|
| Family/Neighbourhood Organization (X _{3.1}) | 1,219 | 2,925 | 0,003 | Valid | 0,857 |
| Caste System (X _{3.2}) | 3,631 | 3,076 | 0,002 | Valid | |
| Religion Dogma (X _{3.3}) | 3,918 | 3,046 | 0,002 | Valid | |
| Village Life (X _{3.4}) | 3,841 | 3,085 | 0,002 | Valid | |

Table 3 shows that all indicators have probability less than 0,05. The analysis result shows that 4 indicators serve as the constructs which constitute the socioeconomic establishment variable. The analysis result shows that the most dominant loading factor estimation is the religion dogma. The variable of the government stimulus consists of 4 indicators and the result of Confirmatory Factor Analysis is presented below:

Table4.The Result of Loading Factor Estimation for Marketing Strategy Variable

| Indicators | (Loading Factor) | CR | P | Explanation. |
|--|------------------|--------|-------|--------------|
| BLT (Y _{1.1}) | 1,000 | | 0,000 | Significant |
| BOS (Y _{1.2}) | 1,017 | 16,323 | 0,000 | Significant |
| Agricultural Equipment (Y _{1.3}) | 0,454 | 5,854 | 0,000 | Significant |
| Fishing Nets (Y _{1.4}) | 0,741 | 12,728 | 0,000 | Significant |

Table 4 shows that all indicators have probability less than 0,05. The analysis result shows that 4 indicators serve as the constructs which constitute the government's stimulus variable. The analysis result shows that the most dominant loading factor estimation is BOS (Operational Assistance for School). The variable of the economic growth consists of 4 indicators and the result of Confirmatory Factor Analysis is presented below:

Table 5. The Result of Loading Factor Estimation for Economic Growth Variable

| Indicators | (Loading Faktor) | CR | P | Explanation. |
|--|------------------|--------|-------|--------------|
| Performance of Agricultural Sector (Y _{2.1}) | 1,000 | | 0,000 | Significant |
| Performance of Fishermen (Y _{2.2}) | 0,871 | 17,808 | 0,000 | Significant |
| The Changes in Saving (Y _{2.3}) | 1,024 | 19,990 | 0,000 | Significant |

| | | | | |
|---|-------|-------|-------|-------------|
| The Spending Increase (Y _{2.4}) | 0,120 | 1,637 | 0,048 | Significant |
|---|-------|-------|-------|-------------|

Table 5 shows that all indicators have probability less than 0,05. The analysis result shows that 4 indicators serve as the constructs which constitute the economic growth variable. The analysis result shows that the most dominant loading factor estimation is the changes in savings.

Overall Model of Fit Test

The structural model test for overall latent (construct) variables is conducted by performing test on the variables Economic Structure Changes, Capital Establishment, SocioCultural Change and The Government's Stimulus which serve as exogenous variables. Meanwhile, Economic Growth serves as the endogenous variable. These variables can be combined in a structural model. Overall test is performed by using goodness of fit test. The result of Goodness of Fit Test for overall models is presented in the following table.

Table6. Goodness of Fit Test for Overall Models

| Criteria | Cut off | Result | Explanation. |
|--------------------------|--------------------|---------|--------------|
| Chi-square | Expected to be low | 179,226 | Fit |
| Significance probability | ≥0,05 | 0,939 | Fit |
| Relative Chi-square | ≤2,00 | 0,853 | Fit |
| RMSEA | ≤0,08 | 0,000 | Fit |
| CFI | ≥0,90 | 1,015 | Fit |
| TLI | ≥0,90 | 1,000 | Fit |

Source: The analysis of the primary data.

The table shows that the value has met the requirement for cut off; thus, the model is fit to be used for the subsequent analysis. After obtaining fit overall models, the test for structural model must be performed to figure out the significance among constructs (Hair et al, 1998). This test uses the value of critical ratio (CR) or probability (p) on regression weights explained in the attachment. Based on the t distribution table (Walpole, 1978) critical value on the significance value of 5% is 1,96. The correlation among constructs has the significant influence if the value of CR ≥ 1,96 or p ≤ 0,05.

Table 7. The estimation result of the equation for simultaneous determinant factors for the economic growth in Sulawesi Utara

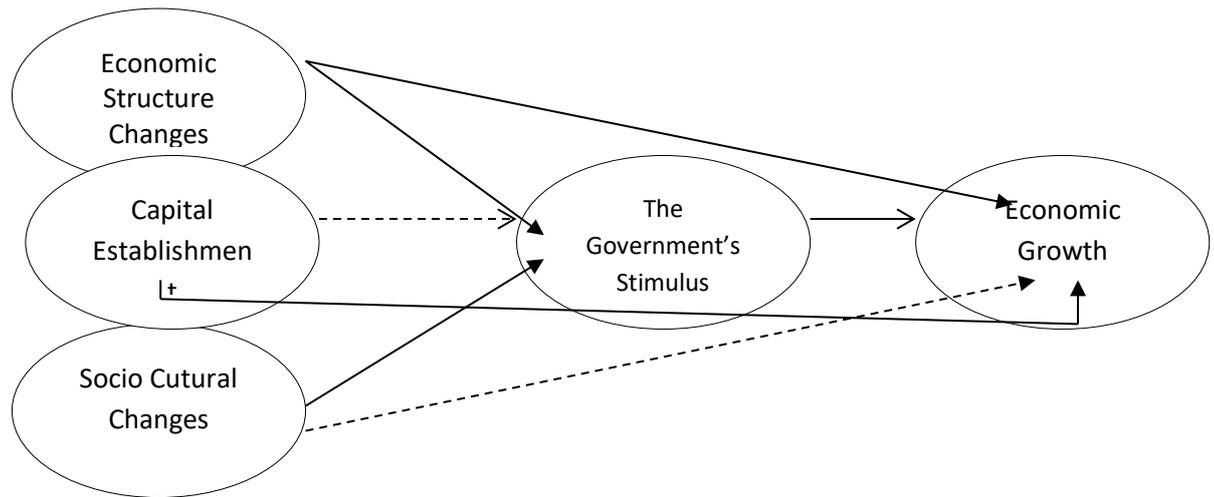
| Independent Variables | Dependent Variables | Direct Influence | Indirect Influence | Overall Influence | t | α | Explanation |
|---------------------------------|--------------------------------|------------------|--------------------|-------------------|-------|-------|---------------|
| Economic Structure Changes (X1) | The Government's Stimulus (Y1) | 0,924 | 0,000 | 0,924 | 6,848 | 0,000 | Significant |
| Economic Structure Changes (X1) | Economic Growth (Y2) | 0,400 | 0,464 | 0,864 | 2,670 | 0,000 | Significant |
| Capital Establishment (X2) | The Government's Stimulus (Y1) | 0,051 | 0,000 | 0,051 | 0,548 | 0,583 | Insignificant |
| Capital Establishment (X2) | Economic Growth (Y2) | 0,223 | 0,025 | 0,248 | 2,242 | 0,025 | Significant |
| SocioCultural Changes (X3) | The Government's Stimulus (Y1) | 0,712 | 0,000 | 0,712 | 1,992 | 0,046 | Significant |

| | | | | | | | |
|-------------------------------|----------------------|-------|-------|-------|-------|-------|---------------|
| SocioCultural Changes(X3) | Economic Growth(Y2) | 0,534 | 0,358 | 0,892 | 1,549 | 0,121 | Insignificant |
| The Government's Stimulus(Y1) | Economic Growth (Y2) | 0,503 | 0,000 | 0,503 | 6,338 | 0,000 | Signifikan |

Source: The analysis of the primary data.

The figure below is made to provide systematic explanation on the model of direct variables among variables and their loading factors in the final test

Figure 2. Economic Structure Changes, Capital Establishment, and Socio Cultural Changes on The Government's Stimulus and Economic Growth



Note: → significant, --- not significant

The regression coefficient for the effect of Economic Structure Changes on Government's stimulus is 0.924 with $p = 0,000$ and with $t = 6,846$ which is higher than 1.96. This shows that changes in economic structure have a positive and significant effect on government's stimulus.

The regression coefficient for the effect of economic structure change on economic growth is 0,223 with p value = 0,008 and with value $t = 2,670$ higher than 1,96. This shows that changes in economic structure have a positive and significant impact on economic growth (Y2).

The regression coefficient for the influence of the Capital Establishment on the Government's Stimulus is 0.051 with $p = 0.583$ and with the value $t = 0.548$ which is smaller than 1.96. This shows that Capital Establishment has positive but not significant effect on Government's Stimulus

The regression coefficient for the effect of capital establishment on economic growth is 0,223 with p value = 0,025 and with value $t = 2,245$ higher than 1,96. This shows that capital formation has a positive and significant effect on economic growth (Y2).

The regression coefficient for influence of socio-cultural change on government's stimulus is 0,712 with p value = 0,046 and with value $t = 1,992$ higher than 1,96. This shows that socio-cultural changes have a positive and significant impact on government stimulus.

The regression coefficient for the effect of socio-cultural change on economic growth is 0,534 with p value = 0,121 and with value $t = 1,549$ which is smaller than 1,96. This shows that socio-cultural changes have positive and insignificant impact on economic growth.

The regression coefficient for the effect of government's stimulus on economic growth is 0,503 with p value = 0.000 and with value $t = 6,338$ higher than 1,96. This suggests that government stimulus has a positive and significant impact on economic growth.

The indirect effect of changes in economic structure to economic growth of 0.464 strengthens the effect with total influence to be 0.864. The indirect effect of capital formation on economic growth is 0.025 reinforces the effect with the total effect of 0.248. The indirect effect of socio-cultural changes on economic growth of 0.358 strengthens the effect with total influence of 0.892

Discussion and Research Implication

The research result shows that the changing economy structure has a direct, positive, and significant influence toward government stimulus. This is showed by the CR value and the probability which is bigger than minimum CR that is implied for 1,96. So, the better of economy structure, the more precise of government stimulus policy.

The variable of economy structure changing that covers job opportunity, labor productivity, the resource empowerment can influence the income stability for community especially for community in coast and slum area. The government support in order to provide the community with job opportunity generally can show the available resource especially to influence the poor family so they can get access toward the prosperity and it is shown with the increasing of purchasing power. Based on the research result that based on causal analysis relation shows that the economy structure changing has a direct, positive, and significant effect toward the government stimulus. So the better of economy structure, the more precise help that is given by the government.

The finding in the field strengthens the opinion from Lewis in his book entitled "The Theory Economic Growth" in Jhingga 2007 that states by applying the fiscal policy, good monitoring, and also the right model supply can support the modal formation. The result research from ACCA that states the conducive government policy will push the entrepreneur to develop the bussiness. So, the bussiness development will open the job opportunity that is capable in responding the economy structure changing fast, from poverty into prosperity.

The job division is the beginning point of Adam Smith theory that improves the productivity of worker, he relates the increasing of productivity with the increasing of skill. The structure changing covers the diversion meaning from traditional community into modern community. The most important aspect in economy structure changing is is the social system changing. Meir and Baldwin (in Jingga 2007) states that the new desire, the new motivation, the new way of production, and the new constitution are created if the national income wants to be improved fast. However they think every structur changing that occurs fast, in the beginning it will cause dissatisfaction and resistance.

In 2004, President SBY was optimist that the economy growth could reach until 7%. Next, the government attempts to move the real sector by giving the convenience that is expected to improve the investation, export growth, and the convenience of finance access for small and middle bussiness. However the increasing of fuel price in wrong time and wrong prediction of the impact that might happen have eliminated anything that has been planned. The new policy that lasts short term such BLT fund compensation has caused new problems. So, it can be concluded that the economy structure changing in opening the new job opportunity improves the productivity of labor, the resource empowerment, and the technology refinement that can improve the economy growth by giving direct help with cash, farming tools, and fishing gear. These aids can improve the investation and savings in community. So, the empiric finding in this research states that there is direct, positive, and significant reliom between the changing of economy structure and the government stimulus policy.

The implication of the result research requires the government to create a relevant policy with the available resource in any regions. So, this finding can be a reference for the next research. The important aspect in econoomy structure changing is the inhabitant movement from primary sector and secondary sector into tertiary sector. However, this can not be included in analysis of economy structure changing by the researcher because this is too wide and takes a long time. The reseracher relates the economy structure changing that is stated by Hoselitz (1957) who claims that the most important changing that occurs in take off period is the adjustment of institution in facing the new need.

Arianto (2008) states that the government policy can improve the work of the small and middle bussiness by: 1) tax stimulus 2) banking rules relaxation. Covin and Slevin (1989), Davidson (1991), Tan and Tay (1994), Gnawali dan Fogel (1994), and Yusuf (1995) state that the government support, the government policy and procedure, the access of financial institution, social economy condition, training and research that are done by the university are the examples of external factor that is important for the success of bussiness.

The modal formation has a positive influence but it is not significant toward the government stimulus. While the influence of modal formation toward the economy growth has direct, positive, and significant influence. This research is conformable with Jingga (2007) who states that in developing or underdeveloped country the modal formation is low because the factor of modal formation is less. It can happen because the modal formation tool depends on saving (S). He states that in underdeveloped country, the factor of modal formation is under 5% while in America is 15% and in West Germany and Australia are 25%. The influence modal formation toward the government stimulus, from the finding is same with condition in underdeveloped

country. From the finding in the field, that low influence occurs because the low income. They generally live in coast and slum area that has characteristic for having low income, less entrepreneurship, less modal, narrow market, and less technology. In underdeveloped country, the private saving rate is low because the low income and intention for having high consuming. So the government policy model is expected to form the modal.

The variable of modal formation is not significant in government stimulus. This finding is opposite with the construction of established theory. The relation of variable that is not significant is caused by the human resource that is owned by the support receiver, incapable in making plans, and the saving intention that can't be done by the community. This is relevant with Harrod-Domar's statement. He states that the need of saving (S_n) depends on the modal need and the modal need depends on interest rate.

The finding of this research supports the economy growth theory such as: (Lewis)(Kaldor)(John Robinson) in world bank annual report (1982). In poor country, saving is smaller not because they are poor but the capitalist sector is too small. They can increase the modal formation rate by improving the positive profit toward national income. This research refers to vander Berg (2002) research who states that the support in trade credit or government support correlates positively in business growth. While the the part time operation of bank loan has negative correlation. Next, this finding is also in line with Schmitz (1982:13-43) who states that the obstacle in economy growth/business is caused by external factor because the way of expansion is blocked, as a result of difficult market product, technology, and exploitation from modal owner through some mechanisms. Implication in this research that actualizes the growth rate guaranteed $G=S$; but it is still far from expectation so the model growth that is in North Sulawesi based on c theory is still on natural growth rate and equation is $G_n = S$ (G, G_w, G_n). This is a growth rate in certain period where S is saving intention and long term process.

So the implication of this result of knowledge strengthens the finding and empiric study that gives result of this research which is the modal formation has influence in small business economy growth at North Sulawesi, and this research can be reference for the next research.

The socio culture changing can influence directly the government stimulus positively and significantly but it is not significant toward the economy growth. The economy experts give requirement for community where socio culture must be changed if the development still wants to run. It means that family organization, caste system and also religion must support the development. Based on economy expert like Cameros (1983) states that the country can't claim itself advance without organizing education in civilization. jinggan (2007) also states that the increasing of national income will not bring the increasing of social welfare if the increasing of income is not accompanied by culture adjustment. Because of that, all socio culture changing must be selective and be introduced gradually. The method that is used must be persuasive and not coercion. The congruence of result that is stated by experts and research result that can accept the relation of socio culture, government stimulus and also the economy growth, even the indicator is different but all indicators reflect the socio culture changing. So, the implication of this research gives clue that socio culture changing that is reflected by the family organization, caste system religion, and village life should be noticed by the government in organizing and applying the stimulus. From the result of this research, the socio culture changing can influence the government stimulus. So this research can be a reference for the next research.

Various surveys show that the key of success in development is not in the quantity of natural resource that is available but it is on how far the government effort in using the equipment and means that have been available. It can be in form of the community network of people economy post where the task of people economy post is generally as multi purpose community telecenter.

Facing the wave of changes that occurs fast between the economy growth and the readiness of community who belongs to weak economy often becomes the obstacle if the development plan ignores the condition of weak economy community. In Primiana (2009) states that the government should make long term of blue print so the whole community will know what this country will become in 10 years ahead. So, all the programs are directed to achieve that goal. He also states that the fault that occurs are officials changing that causes the changing of policy. This will cause a good program that has been made will not be done. Principally, the government in taking policy as solution to improve the people welfare must calculate very carefully.

This research highlights the economy growth theory from Harrod and Domar. They state that there is double character that is owned by the investment. First, it creates the income. Second, it makes the economy production capacity bigger by improving the modal stock. The indicator of economy growth can be reflected in government intervention where based on Harrod Domar model that assumes in economy activity there is not any government intervention. This assumption can not be applied in underdeveloped country because this country will not develop

without the support from government. However, Prof Kurihara (1983) suggests that the policy implication for underdeveloped country is opposite with the expectation. However the growth models contain positive lesson for the economy that a country is related not only for playing the rule as stabilization but also for development.

The success of economy growth is decided by three main factors: human, process, and technology. Human is number one factor because the work of development is how organize the relation between human. So, the personal touch is needed. It is also needed attitude and spirit from the development perpetrators to be more proactive in digging and knowing the economy condition especially in coast and slum area.

In the implementation of economy growth, research that is relevant with resource in North Sulawesi that can give help to support the community that are powerless because they do not have modal and the purchasing power decreases. Slogan like do not give, but give the bail should be implanted by North Sulawesi government to improve the farming work, fisherman work, saving changing, and also the increasing of spending. This research also refers to one solution that the training is needed to change the community paradigm as economy perpetrator so the farmer and fisherman can be strong, creative, initiative and they can be independent in developing their business. They are also expected to be able in improving the purchasing power and also improve the endurance strategy to support the family welfare.

Research Limitation

From the result of this research actually has been recognized that the finding that is resulted has not been capable in giving the accurate result for answering all problems that relate with factors that influence the economy growth in North Sulawesi. It can happen because there is limitation that is owned by the researcher and there are also obstacles that are experienced by the researcher so it disturbs the accuracy of information. These are several limitations that are owned by the researcher:

1. The limitation of time for respondent to fill the questionnaire so it is feared that the data can not show the real condition of the respondent.
2. Though the validity and reliability test has been done toward the instrument, the questionnaire that is used is susceptible with bias. It is caused by the answer for all question in this research based on the self evaluation of the respondent. So it is feared that there is over estimate in evaluating himself or under estimate in evaluating things outside himself.
3. The data that is needed is policy stimulus receiver in North Sulawesi that generally the receiver keeps changing from year to year. So it makes researcher difficult in determining whether the stimulus from government can improve the investment (saving) in North Sulawesi.

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