

A Theoretical Model Of Poverty Approach Within The Framework Of Fiscal Decentralization, Minimum Wages, And Government Accountability

Maharajabdinul¹ ✉ Mahaputra²

^{1,2} STIE Makassar Maju Makassar

Abstract

The purpose of this paper is to provide a model for poverty alleviation by looking at maximizing the utility of social planners by adopting fiscal decentralization, minimum wages and quality of government, which then combines three models that lead to the utility function of social planners that see pro-poor regional and central government spending, absorption of labor faced by a minimum wage, and achieving minimum growth in an accountable government.

Keywords: *Poverty Model, Poverty, Decentralization, Quality of Local Government, UMP; Poverty.*

Copyright (c) 2023 Maharajabdinul

✉ Corresponding author :

Email Address : maharajab.dinul@unifa.ac.id , mahputrananto@gmail.com

PENDAHULUAN

Poverty is a major problem in many countries, especially in developing countries, and the governments is trying to overcome it in various approaches, one of which is implementing the concept of regional autonomy in its territory. This applies in Indonesia, as Undang-Undang No. 23 Tahun 2014, which relates to handling poverty which is the responsibility of the regions in the form of providing basic services and unemployment.

The model built in this paper uses the model developed by Assamoi Yoi .G (2007), which also uses the theoretical models of Kanbur and Feroni (1991), Besley and Coate (2003) and Faguet (2004). Kanbur and Feroni (1991) explicitly introduces a poverty dimension with a basic needs approach in improving public spending but not within a fiscal decentralization framework, while Besley and Coate (2003) and Faguet (2004) analyze decentralization of the provision of public goods without introducing poverty reduction, then writing This combines the Akai and Sakata (2002) model developed by Hamid Paddu (2010) by including labor supply and geography variables.

This model also looks at poverty as influenced by employment as a result of setting a minimum wage, so this paper also adopts the Fields GS and Kanbur R (2004) model which looks at the effect of the minimum wage on poverty.

Therefore this model assembles three models that lead to the utility function of social planning which looks at pro-poor local and central government spending, absorbs labor faced by a minimum wage, and achieves minimum growth in an accountable government.

Poverty is also a measure of well-being, both ordinal and cardinal, Sen (1976). Then Sen (1997), introduced a more complex concept of poverty, by taking a more complex approach, namely Basic Capability in the definition of poverty. The concept of poverty continues to evolve, starting from the utility approach to poverty being defined as loss of income, food, shelter, employment opportunities, physical aspects, and productive resources.

Sen (1997) states that if the approach uses the social welfare function, it is helpful to measure inequality, or evaluate measures of relative inequality, then the framework is expanded to include comparing one person to another. Sen then stated that a person is said to be poor if his income is below the poverty line.

Mankiw (2003). said that:

“The goal of policy makers is to maximize the well-being of the individuals who make up society. They don't care about the amount of capital and even the amount of output, but only care about how much goods and services are consumed, so policy makers choose the economy in the steady state with the highest level of consumption”.

One of the goals of the state in implementing fiscal decentralization is to encourage economic growth, Hamid Paddu (2010), and as long as economic growth can reduce inequality, poverty reduction can occur, Son HH and Kakwani N (2004) as well as found by F Regina S, et al (2020), but appears to contradict Ananta AS S & Duddy S (2021), in cases found in Indonesia.

The theory of fiscal decentralization finds the phenomenon that the implementation of fiscal decentralization policies can lead to increased macroeconomic instability in the regions. This happens when the institutional carrying capacity that is structured to carry out the policy is inadequate Lockwood (2002), and previously Oates (1997) stated that local governments will not provide public goods efficiently, and it is difficult to compare the efficiency of the public goods provided by the central government and local government, but different from the statement of Alice Soares Guimarães & Thoko Jean Chilenga (2018) that decentralization gave birth to recentralization because there is a tendency for local governments to depend on transfer funds from the center.

Golan A, et all (2001) found an increase in the minimum wage resulted in an increase in the loss of welfare, in addition it was also found that the minimum wage reduced equity for people with high and low education. Previously Brown (1999) stated that the minimum wage would suppress income distribution, and resulted in a debate whether absorption of labor would be faced with high labor costs, reduced profits, and reduced labor or increased output prices, but Kashif M and D found it different. O'Neill (2020) that an increase in the minimum wage increases consumption expenditure and increases the standard of living of workers.

Poverty can be caused by a corrupt government, low law enforcement and government accountability are ingredients for social conditions that create poverty. Corrupt behavior has an indirect effect on poverty, because corruption will reduce the government's ability to develop, especially poverty alleviation programs. Impaired social and human conditions are a major source of poverty (Triesman; 2000a)

METODOLOGI

As a first step, we can see two types of economy, $k = (c,d)$, where c is a type of centralized economy and d is a decentralized economy, and d contains (J) is local government (LG) more than one $j = (1, 2, \dots, j)$ and have (m) poor and non-poor households, which assumes that there is no individual mobility. This assumption is in the context of developing countries, where mobility is a high cost both financially and culturally

In contrast to the assumptions Hamid Paddu (2010) who adopted Akai and Sakata (2002) model, by dividing local government into two, namely resource-rich areas and resource-poor areas, this paper assumes that all regions have poor citizens. without distinguishing an area rich in resources or not.

According to Kanbur R and Ferroni M (1991), that the family is characterized by a standard of living (W), continuous and has two differentiable ($C2$) which are defined as achieving basic needs (B) and not basic needs (I).

$$W = W(B, I) \text{ since } W_B > 0, W_{BB} \leq 0 \text{ and } W_I > 0, W_{II} \leq 0 \quad (1)$$

RESULT & DISCUSSION

Basic needs (B) are a physical and psychological unit, and each individual expects to obtain all of these basic needs or at least the minimum value of basic needs, such as food, clean water, sanitation, basic education and health services. So the basic needs approach is an indicator that can be accounted for to assess individual income or spending.

If basic needs (B) are a function of services and public goods (g) that are pro-poor, then

$$B = B(g) \quad \text{since } B_g > 0, B_{gg} \leq 0 \quad (2)$$

and not basic needs (I), which are essentially the consumption of production results Private investment, so not basic needs are a function of other goods (x)

$$I = I(x) \text{ since } I_x > 0, I_{xx} \leq 0 \quad (3)$$

Then each local government, (j) which is characterized by the need for parameters $(\theta_j) > 0$, namely the provision of information to combine pro-poor public good (g^*), and the production of private investment (x^*) needed to get families out of poverty. Thus combined (1) and (3), correct information regarding the standard of living of each household, it is obtained:

$$W = W[\theta B(g), I(x)] \quad (4)$$

therefore that an increase in basic needs (B) and productivity of private investment (I) will increase living standards

If it is assumed that the local government has a balanced budget where all revenues (local income and intergovernmental transfers) (T) are spent (E) then $T=E$, and spending in this case is spending per capita, which is government spending that favors to the poor (pro-poor) and allocated for the procurement of public goods and services (g) as well as in addition to investment production (x). if the price of public goods (g) produced by investment (x) is τ ($\tau > 0$), thus to produce one unit of public goods/services requires τ units of investment production, so the budget constraint can be written:

$$\bar{E} = X^k + \tau^k g^k \quad \text{since } k = \begin{cases} d = \text{decentralization} \\ c = \text{centered} \end{cases} \quad (5)$$

If equations (4) and (5) are combined, the objective function and government budget constraints are obtained, which can be written:

$$\text{Max } W^k = W[\theta^k B(g^k), I(x^k)] \quad \text{since } k = \begin{cases} d = \text{decentralization} \\ c = \text{centered} \end{cases} \quad (6)$$

$$\text{s.t } \bar{E} = x^k + \tau^k g^k$$

so that the equation for the decision maker is obtained

$$\text{Max } g^k = W[\theta^k B(g^k), I(\bar{E} - \tau^k g^k)] \quad (7)$$

Social planners will maximize spending, on the basis of the standard of living from the provision of public goods/services, as well as other goods produced by investment. If there is a change in the standard of living as a result of a change in the basic needs provided by the government through investment, then:

$$w_g = \theta^k \frac{\partial w}{\partial B} \frac{\partial B}{\partial g^k} - \frac{\partial w}{\partial I} \frac{\partial I}{\partial x} \tau^k = 0 \quad (8)$$

$$B_g = \frac{\tau^k}{\theta^k} \frac{w_I}{w_B} \quad (9)$$

Thus there will be a standard of living trade-off for the need for other goods, as well as public goods spent through investment with a standard of living that uses basic needs.

Another approach from the developed model is a growth approach that uses fiscal decentralization to maximize the preferences of social planners, then equation (7) will be combined with the model developed by Hamid Paddu (2010), using the utility function which describes the preferences of social planners for growth with the equation linear.

$$U = \omega g - E \quad (10)$$

Where (ω) is a growth companion parameter, which shows equity that the greater the coefficient ($\omega \rightarrow \infty$) is, the less concerned social planners are with equity. Equation (10) has the same variable symbol as that developed by Assamoi, g is replaced by y_k as a growth variable, and E is replaced by $\exists$ as an equalization parameter that shows the share of regional fiscal spending towards the center, but in this paper assumed that each region has a different portion. the same, so that $\exists = 0$, so that;

$$U = \omega y_k \quad (11)$$

To achieve minimum y_k growth, the output must reach a value where each individual's minimum needs (g_{kmin}) (basic needs) are fulfilled.

Barro and Sala-i-Martin (1990) stated that $Y = A k (1-\alpha) g^\alpha$ where $g = G/n$ (government spending/per capita). Minimum fiscal expenditure (g_k) is achieved, meaning that the minimum need for public goods/services is met, meanwhile growth (y_k) is influenced by central and regional fiscal policies.

If capital growth (k_{min}) is investment growth $I(x)$, Romer (1986), and economic growth is a function of labor in the form of human capital (L), Romer (1990). If central output is G_c and regional output is G_j ($j = 1 \dots n$), and p is the ratio of each central and regional output to total output.

$$Y = \sum_{j=1}^{j=n} p y^k \quad (12)$$

$$U = \omega p y_k(g_k, k, L) \quad (13)$$

$$U = \omega p y_k \{W[\theta^k B(g^k), I(\bar{E} - \tau^k g^k),] L\} \quad (14)$$

If the regional and central outputs are equal to the total output then $p=1$, so

$$U = \omega y_k \{W[\theta^k B(g^k), I(\bar{E} - \tau^k g^k),] L\} \quad (15)$$

The preferences of social planners will increase when efforts are made to do equity and plan for minimum growth on the basis of living standards and employment.

Institutional aspects are considered by social planners, where the quality of both central and regional government in managing state finances is represented by the parameter σ , and has a value of 0 to 1 ($0 < \sigma < 1$), where 0 indicates that the government has misused all state funds and 1 indicates that the regional and central governments do not abuse state money at all and use it fully for development

$$U = \sigma \omega \ yk [W[\theta^k B(g^k), I(\bar{E} - \tau^k g^k),]L] \quad (16)$$

The employment becomes a determining factor in the preferences of social planners, so social planners will be faced with minimum wage policies. If L is employment, and is a function of the minimum wage

$$L = DL = D(\hat{w}) \quad (17)$$

$$U = \sigma \omega \ yk [W[\theta^k B(g^k), I(\bar{E} - \tau^k g^k), D_L(\hat{w})] \quad (18)$$

The role of the government (central and local) towards development and poverty reduction, is not only through (local) fiscal policies but also efforts to increase income, or increase the purchasing power of poor workers through setting a minimum wage. To adopt the minimum wage in relation to poverty, this paper uses the model developed by Field GS and Kanbur R (2005), which is a model that departs from welfare and is a function of unemployment, so that unemployment is another connotation of poverty..

$$W = f(\text{Unemploy}) \quad f' < 0. \quad (19)$$

$$W = g(\text{Pov}) \quad g' < 0, \quad (20)$$

The approach taken is the poverty approach which measures the poverty line (z) developed by Foster, Greer, and Thorbecke (1984)..

$$P_\alpha = \frac{1}{N} \sum_{i=1}^q \left[\frac{(z - y_i)}{z} \right]^\alpha \quad (21)$$

Where α is a parameter that shows how much hatred is towards poverty, if $\alpha = 0$, we will get the ratio of poor people, then the greater this parameter, the greater the sensitivity of changes in income of the very poor to those who are not very poor.

If employment is a function of wages $D(w)$ then $D'(w) < 0$, assuming the population is constant, and there is no incoming and outgoing labor, then there is no interference in the market w^* then $D(w^*) = 1$. If it is determined that there is a minimum wage $\hat{w}$, workers are x so that $D(\hat{w}) = x$, then unemployment is $1 - x$. workers will get the minimum wage $\hat{w}$ and those who don't work get nothing, assuming no social security.

In some cases, the minimum wage depends on the poverty line (z), where the minimum wage is always above the poverty line, then $0 < z \leq \hat{w}$, thus all those who work and earn a minimum wage can get out of poverty. Under conditions of high minimum wages, the unemployed wage is zero, then

$$P_\alpha = (1 - x) \left[\frac{(z - 0)}{z} \right]^\alpha = 1 - x \quad (22)$$

When the minimum wage increases it will affect P_α , then

$$\frac{\partial P_\alpha}{\partial \hat{w}} = -\frac{\partial x}{\partial \hat{w}} = -D'(\hat{w}) > 0 \quad (23)$$

So any increase in the minimum wage that goes beyond the poverty line will increase poverty.

In reality, the poor are not only unemployed but also people who work and earn a minimum wage

$$P_{\alpha} = (1 - x) + x \left[\frac{(z - \hat{w})}{z} \right]^{\alpha} \quad (24)$$

As previously stated that if $\alpha = 0$. Then a ratio of poor people will be obtained, and if everyone is below the poverty line, the ratio of poor people will be 100%.

$$\frac{\partial P_0}{\partial \hat{w}} = 0 \quad (25)$$

In order for the tradeoff between poor workers and poor unemployed to be passed, the parameter $\alpha \geq 1$ is needed. When $\alpha = 1$, equation (24) can be changed to:

$$P_{\alpha} = (1 - x) + x \left[\frac{(z - \hat{w})}{z} \right]^1 \quad (26)$$

$$\hat{w} = \frac{z}{x} (P_{\alpha} - 1) \quad (27)$$

$$\frac{\partial \hat{w}}{\partial P_{\alpha}} = \frac{z}{x} \quad (28)$$

Where $x = D(\hat{w})$, then,

$$D(\hat{w}) = \frac{\partial \hat{w}}{\partial P_{\alpha}} z \quad (29)$$

$$D(\hat{w}) = \hat{w}_{P_{\alpha}} z \quad (30)$$

The demand for labor at the minimum wage will increase as the poverty line increases, as long as changes in the minimum wage as a result of changes in poverty are constant.

By substituting equation (18) with (30), we get

$$\text{Max } U = \sigma \omega \ yk [W[\theta^k B(g^k), I(\bar{E} - \tau^k g^k), \hat{w}_{P_{\alpha}} z]] \quad (31)$$

CONCLUSION

Social planners will maximize growth, through fiscal spending based on living standards and determining minimum wages based on poverty alleviation, while still paying attention to the quality of government administrators (central and regional)

Reference :

- Akai Nobuo and Masayo Sakata (2002), "Fiscal decentralization Contributes To Economic Growth: Evidence From State-Level Cross-Section Data For The United States" *Journal of Urban Economics*, No 52 p93-108.
- Alice Soares Guimarães & Thoko Jean Chilenga (2018), Local Government and the Provision of Public Goods: decentralization and fiscal autonomy in Nigeria, ATRN working paper 01
- Ananta A S & Doddy S (2021), Fiscal Decentralization, Accountability and Corruption Indication, *Jurnal Bina Praja*, Vol. 13 No. 1
- Asamoi Yoi G (2007) "Fiscal Decentralization and Poverty Reduction Outcomes: Theory and Evidence" *Disertation Paper 26*, Georgia State University
- Berger D W, Herkenhoff K F, and Simon M, (2022), Minimum Wages, Efficiency and Welfare, *Working Paper 2022-10*
- Besley T and Smart (2007), "Fiscal Restraints and Voter Welfare" *Journal Of Public Economics*
- Brown, C. (1999): "Minimum Wages, Employment, and the Distribution of Income," in *Handbook of Labor Economics*, ed. by O. Ashenfelter, and D. Card. Amsterdam; New York and Oxford: Elsevier Science, North-Holland
- F Regina S, Ferinda N & Nurmanti M (2020) The Impact of Fiscal Decentralization on Welfare in Selected Provinces in Indonesia, *Jurnal Bina Praja* Vol. 12 No. 1
- Field GS and Kanbur R (2005), "Minimum Wage And Poverty" *Paper conference on "Seventy-Five Years of Development Research," Cornell University*
- Foster, Greer and Thorbecke. (1984). "A Class of Decomposable Poverty

- Measures." *Econometrica* 52(3): 761-776.
- Golan A, et all (2001), "Welfare Effects of Minimum Wage and Other Government Policies", Institute for Research on Labor and Employment, Working Paper Series qt36r7v1cr, Institute of Industrial Relations, UC Berkeley
- Hamid Paddu. A (2010), "Pengaruh Desentralisasi Fiskal Terhadap Pertumbuhan Ekonomi dan Ketimpangan Regional Di Indonesia" Disertasi, Pascasarjana UNHAS.
- J P Faguet (2004) Does decentralization increase government responsiveness to local needs? Evidence from Bolivia, *Journal of Public Economics* 88 (2004) 867 – 893 elsevier
- Kanbur, R., & Ferroni, M. (1991). Poverty-conscious restructuring of public expenditure, (Social dimensions of adjustment in Sub-Saharan Africa working paper / World Bank no. 9) Washington, DC, USA
- Kashif M dan D O'Neill (2020) Minimum Wage Compliance and Household Welfare: An Analysis of over 1500 Minimum Wages, IZA DP No. 13298
- Lockwood (2002), "Distributive politics and the benefitts of decentralization", *Review of Economic Studies*, No 69, pp313-338
- Mankiw (2003), "Macroeconomics" Worth Publisher Inc. Ney York
- Oates (1997), "On the Welfare Gains from Fiscal Decentralization", Article *EconomiadellesceIsepubbliehe*. 2-3. University of Maryland. College Park. MD and Resources for the Future. Washington. DC
- Romer, Paul M. (1986). "Increasing Returns and Long-Run Growth." *Journal of Political Economy* 94(5): 1002-37.
- _____ (1990) "Endogenous Technological Change" *Journal of Political Economy*, 1990, vol. 98, no. 5, pt.2 University of Chicago
- Sen (1976), "Poverty: An Ordinal Approach to Measurement" *Econometrica*, Vol. 44, No. 2, pp. 219-231. JSTOR
- ___ (1997), "From Income Inequality To Economic Inequality" *Southern Economic Journal* v64 n2 p384(18)
- ___ (1997), "Inequality, unemploymentand contemporary Europe" *International Labour Review*, Vol. 136, No. 2 (Summer)
- Son HH and Kakwani N (2004), "Economic Growth And Poverty Reduction: Initial Conditions Matter", Working Paper No 2 International Poverty Centre, UNDP
- Triesman (2002), "Defining and Measuring Decentralization: A Global Perspective" University of California, Los Angeles