The Impact of a Poor Family Assistance Program on Human Development in Indonesia

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Horas Djulius*
Universitas Pasundan

Xiao Lixian
Guangdong University of Foreign Studies

Arnanda Novia Lestari
Universitas Pasundan

Septiawan Fajar Eryanto
Universitas Pasundan

ABSTRACT

Direct poverty alleviation initiatives are specifically aimed at improving access to health care, education, and purchasing power for low-income families. This is consistent with the philosophy of human development, which considers these three factors to be essential. Since it is similar to the policy development approach that exists in the poor assistance or empowerment program, the issue is whether this policy is effective in the short or long term. The aim of this research is to examine the short- and long-term effects of poverty alleviation policies on human development in Indonesia. The "penerima bantuan iuran", "keluarga harapan", "indonesia pintar", and "sembako" programs are all policies that support the vulnerable. This study categorizes the effects of these services on health, education, and purchasing power. The data used in the error correction model were derives from the ministries of social affairs, education, and culture, as well as the ministry of health and the Central Bureau of Statistics. The findings revealed that the "penerima bantuan iuran" and "keluarga harapan" programs affected long-term health. In the long term, the "keluarga harapan" initiative will affect educational levels. The "sembako" and "keluarga harapan" schemes have an impact on purchasing power in the long run. Finally, the "bantuan iuran" program, "keluarga harapan" program, "Indonesia pintar" program, and "sembako" program have long-term implications for human development.

Keywords: human development; bantuan iuran program; keluarga harapan program; indonesia pintar program; sembako program.

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1. INTRODUCTION

Poverty alleviation is an essential agenda item for developing countries, and it is accomplished through policies that affect the poor. This spirit is represented not just in practically all developing country development planning papers, but also in the Millennium Development Goals and Sustainable Development Goals (Conceição, 2019). The graph below depicts the evolution of Indonesia's poverty rate over the last 47 years.

Figure 1 indicates that the number of poor individuals decreased dramatically between the 1970s and 2000, before increasing slightly in 2010. Even until 2017, there was a decreasing tendency in the percentage of the population who were impoverished. the

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impoverished, which, of course, demonstrates the efficacy of development measures in the fight against poverty.

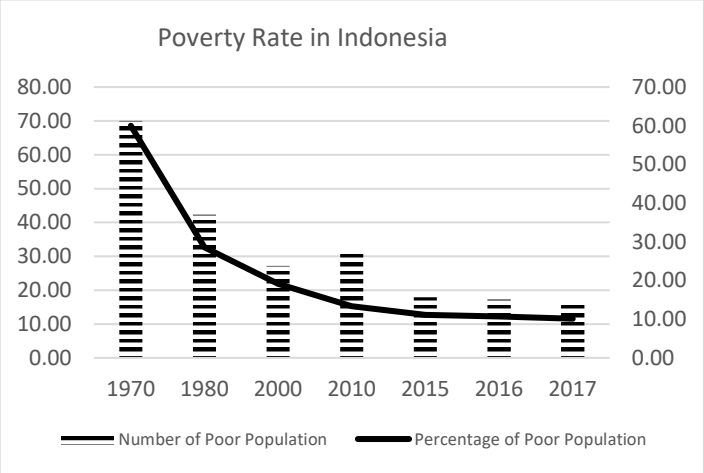

Figure 1: Poverty Rate in Indonesia
Source: Processed by researchers from BPS data

In terms of poverty reduction, the programs received by the poor in Indonesia can be classified as social protection programs, which comprise social and economic policies with the important aspects of human development and economic growth, which are in line with the SDGs' principles. The goal of the social assistance program is to improve community welfare by reducing poverty levels. It can be given in cash or in kind, depending on the requirements of the beneficiary (Supriyanto, 2014). In Indonesia, social protection programs can be divided into three categories: those implemented during the 1997-1998 economic crisis, those implemented after the crisis, and those implemented throughout the reform period. Education, health, food, energy, housing, agriculture, fisheries, and economic and social spheres are all covered by these programs.

Thus, since the inception of social assistance programs in Indonesia, there has been a shared understanding that the goal of receiving aid is human development, particularly for the poor. The link between poverty reduction and human development occurs not only in Indonesia, but also in other developing countries around the world (Lengfelder, 2016; Supriyanto, 2014). Growth and equity, food security, gender equality, increasing community participation, private sector development, improving social policies, health, security, environment, migration, and job creation are the categories under which human development programs are classified.

Human development is a development concept that focuses on humans as expressed by features of education, health, and purchasing power (Conceição, 2019; Ranis, Stewart, & Ramírez, 2000) . In this study, it is assumed that the poor have limited access to health and educational facilities, as well as low purchasing power, in order to align with areas of human development that are of concern (Asep, Athia, Umbu Reku, & Deswanto, 2010). As a result, it is reasonable to believe that poor-assistance programs focused on health, education, and purchasing power lead to human growth in Indonesia. The following are some poverty reduction programs in Indonesia that are relevant to human development (Pezzini, 2019; Widianto, 2018).

The Smart Indonesia Program (Program Indonesia Pintar/ PIP), which began in 2014, is a scholarship program for students studying under the Ministry of Education and Culture who come from low-income families. The Poor Student Assistance Program (Program Bantuan Siswa Miskin/ BSM) was established in 2008 and was the progenitor of this

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program. PIP recipients are pupils who come from poor or vulnerable-to-poverty homes, with some exceptions, such as those who come from families that also receive the PKH program or those who are orphaned. In this study, it is expected that PIP will effect the performance of the education sector in Indonesia, as well as the human development index, which defines the performance of human-oriented development, based on the program's objectives and eligibility requirements.

The Ministry of Social Affairs coordinates the Family Hope Program (Program Keluarga Harapan/PKH). A similar program is known as Conditional Cash Transfer in other countries, and it actually began in Indonesia before 2007. The goal of this initiative is to improve the families' access to education, health, and social welfare. According to the Ministry of Social Affairs' database, the family falls into the poor group. Because the PKH program has a broad scope and influences all of these situations, it is assumed in this study that it can affect the public health index, education index, buying power index, and human development index.

The Sembako Program is a continuation of the Non-Cash Food Assistance (Bantuan Pangan Non Tunai/ BPNT) program, which distributes funds via an electronic account that can only be used to purchase food at authorized outlets. Residents whose socioeconomic circumstances place them in the bottom 25% of Indonesia's income structure are eligible to participate in this program. The basic food program is anticipated to have an impact on purchasing power as well as the human development index in this study.

Contribution Assistance is a government program for target households that is administered by Social Security Administering Agency in the health sector (Badan Penyelenggaraan Jaminan Sosial, BPJS) and takes the form of National Health Insurance (Jaminan Kesehatan Nasional, JKN). The target households are identified using the criteria outlined in the Minister of Social Affairs' Decree No. 146 of 2013. The PBI program is anticipated to have an impact on the health sector as well as human development as measured by the Human Development Index in this study.

This study uses indicators relevant to each sector to explain the impact of these programs on human development in Indonesia. The first is the evolution of the education sector, as measured by average length of school, which is one of the most important components of the education index (Roy Mahendra, 2016). The second is the evolution of the health sector, as measured by life expectancy, which plays a significant role in determining the health index (Uni Sari, 2016). The third point is that purchasing power is reflected by the population's per capita expenditure since it accurately describes the community's true purchasing power situation (Niu, Chu, & Ma, 2016).

Targeted government spending in the context of the aid program is certainly expected to improve the conditions of the poor in the fields of education, health and their purchasing power (Gupta, Verhoeven, & Tiongson, 2002; Maitra & Mukhopadhyay, 2012). The accuracy of this target is the key to the success of the program which is also an indicator of program effectiveness (Kundu, 2017; Mallick & Dash, 2015; Shafuda & De, 2020).

The purpose of this research is to examine the impact of selected poor community assistance programs on human development in Indonesia. Because the success of a program is frequently not visible in a short period of time, these effects will be classified into short-term and long-term effects. This will be a measure of the success of public policies as shown via the programs examined in this study, as well as their impact on the program's goals.

2. METHOD

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The research model used is a time series econometric model, which is consistent with the characteristics of the research problem and the data used. This model consists of several steps:

i. To detect the possibility of spurious regression, run a stationarity test on the research data. Absent regression is a regression result that shows a pseudo-relationship between variables caused by the simultaneous unidirectional movement of the variables rather than the true relationship.
ii. Run a cointegration test to see if the variables in the research model are stable over time.
iii. Estimating the class correction model to determine each research model's short- and long-term effects.

Because this study uses four different variable relation models (health sector, education sector, purchasing power model, and human development model), the above processes will be repeated for each of them. Because it pays attention to data availability, the data used is secondary data from BPS from 2007 to 2019, specifically data connected to the Contribution Assistance Program (PBI), the Family Hope Program (PKH), and the Smart Indonesia Program (PIP).

Table 1: Operational Definition

Symbol	Variable	Definition	measurement
IPM	Human Development Index	HDI index calculated and published by BPS	%
AHH	Life expectancy	The average number of years a person can live from birth to death.	Year
RLS	Average Length of School	The average number of years residents aged 15 and up spent pursuing all sorts of education.	Year
PPK	Expenditure Per Capita	Indonesia's Gross Domestic Product divided by the country's total population	Rupiah per person
PBI	Contribution Assistance Recipient	The amount of funding issued by the federal government for the PBI program's implementation.	Rupiah
PKH	Family Hope Program	The amount of funds issued by the central government for the implementation of the PKH program.	Rupiah
PIP	Smart Indonesia Program	The amount of money issued by the federal government for the purpose of implementing the PIP program.	Rupiah
PPS	Food Program	The amount of money issued by the central government for the purpose of implementing the PPS program.	Rupiah

Source: researcher's literature review.

The health sector model, the education sector model, the purchasing power model, and the human development index model were all employed to analyze the research problem.

- Health sector model (Model 1):

$$AHH = \alpha_{11} + \alpha_{12}.PBI + \alpha_{13}.PKH + \varepsilon_1 \quad (1)$$

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The error correction model for equation (1) is:

$$d(AHH) = \alpha_{21} + \alpha_{22}.PBI + \alpha_{23}.PKH + \alpha_{24}.PBI(-1) + \alpha_{25}.PKH(-1) + \alpha_{26}.ect_1(-1) \quad (2)$$

- Education sector model (Model 2):

$$RLS = \beta_{11} + \beta_{12}.PKH + \beta_{13}.PIP + \varepsilon_2 \quad (3)$$

The error correction model for equation (2) is :

$$d(RLS) = \beta_{21} + \beta_{22}.PKH + \beta_{23}.PIP + \beta_{24}.PKH(-1) + \beta_{25}.PIP(-1) + \beta_{26}.ect_{2(-1)} \quad (4)$$

- Purchasing power model (Model 3):

$$PPK = \gamma_{11} + \gamma_{12}.PPS + \gamma_{13}.PKH + \varepsilon_3 \quad (5)$$

The error correction model for equation (3) is:

$$d(PPK) = \gamma_{21} + \gamma_{22}.PKH + \gamma_{23}.PpS + \gamma_{24}.PKH(-1) + \gamma_{25}.PpS(-1) + \gamma_{26}.ect_3(-1) \quad (6)$$

- HDI Model (Model 4):

$$IPM = \delta_{11} + \delta_{12}.PBI + \delta_{13}.PIP + \delta_{14}.PpS + \varepsilon_4 \quad (7)$$

The error correction model for equation (4) is:

$$d(IPM) = \delta_{21} + \delta_{22}.PBI + \delta_{23}.PKH + \delta_{24}.PIP + \delta_{25}.PpS + \delta_{26}.PBI(-1) + \delta_{27}.PKH(-1) + \delta_{28}.PIP(-1) + \delta_{29}.PpS(-1) + \delta_{210}.ect_4(-1) \quad (8)$$

where:

AHH	:	Life Expectancy (years)
PBI	:	Government Expenditure for Contribution Assistance Program (Rp/year)
PKH	:	Government expenditure on the Family Hope Program (Rp/year)
RLS	:	Average length of schooling (years)
PIP	:	Government expenditure on Smart Indonesia Program (Rp/year)
PPK	:	Expenditure Per Capita (Rp/year/person)
PPS	:	Government Expenditure for the Basic Food Program (Rp/year)
IPM	:	Human Development Index (%)
ect	:	Error corection term
d	:	Delta (difference) variable value
(-1)	:	Variable lag
$\alpha, \beta, \gamma, \delta$	:	Regression coefficient

- To Calculate the short-term and short-term effects.

Calculation of short-term and long-term effects for model 1 (health model) is based on the estimation results of equation (2). If the long-term effect equation is written as follows:

$$AHH = \vartheta_0 + \vartheta_1.PBI + \vartheta_2.PKH \quad (9)$$

Then the regression coefficient in equation (9) is obtained through:

$$\vartheta_0 = \frac{\alpha_{21}}{\alpha_{26}} \quad (10)$$

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$$\vartheta_1 = \frac{\alpha_{24} + \alpha_{26}}{\alpha_{26}} \quad (11)$$

$$\vartheta_2 = \frac{\alpha_{25} + \alpha_{26}}{\alpha_{26}} \quad (12)$$

The short-term effect can still be observed in equation (2)'s estimation findings, with α_{22} and α_{23} indicating the regression coefficients for the short-term effects of PBI and PKH on AHH, respectively.

3. RESULTS AND DISCUSSION

Table 2 lists all of the variables that were studied during the sample period. The arithmetic mean and the Jarque-Bera statistic are two essential statistics in the table. During the study period, the Indonesian occupation appears to have had an average life expectancy of 70.10 years. During that time, the average human development index was 69.08 years, or 69 years and 1 month. The average amount of time spent in school in Indonesia is 7.66 years, or 7 years and 8 months. It is equivalent to grade 8 when expressed in terms of formal schooling (junior high school grade 2). Another variable is rupiah per year units, which describes government spending on poor-targeted programmes.

The Gross Domestic Product, current prices, divided by the whole population yields IDR 9,249,115 per person per year as per capita expenditure of the Indonesian population (PPK). The average government spending for the Contribution Assistance Program (PBI) is IDR 12.1 trillion per year, the Smart Indonesia Program (PIP) is IDR 6.5 trillion per year, the Family Hope Program is IDR 4, 23 trillion per year, and the basic food program is Rp 17 trillion per year.

Table 2: Variable Description

	AHH	IPM	PBI	PIP	PKH	PPK	PS	RLS
Mean	70.10	69.08	1.21E+13	6.54E+12	4.23E+12	9249115.	1.79E+13	7.66
Std. Dev.	0.85	1.63	8.19E+12	4.00E+12	3.76E+12	1595233.	3.98E+12	0.19
Jarque-Bera	1.27	0.82	1.38	0.69	1.53	2.86	1.23	2.51
Probability	0.52	0.66	0.50	0.70	0.46	0.23	0.53	0.28

Source: Data processing results

The Jarque-Bera statistic is used next to indicate the distribution of the research variables. This statistic can be interpreted in two ways. The first is by comparing it to the critical limit of Chi squared. If this statistic exceeds the critical limit, Ho is rejected. This test's null hypothesis is that the data is regularly distributed. The second method is to compare the probability value to =1 percent, =5%, or =10%. Ho is rejected if this probability is less than the crucial limit. Table 2's Jarque Bera probability value indicates that all tests accept Ho, implying that all research variables are normally distributed. The findings of this test will contribute to the validity of the econometric model's estimation results at a later stage.

The following step is to run a unit root test. This test is used to determine whether the association between the research variables, if any, is real or just because the variables move

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together. Table 3 summarizes the unit root test findings for levels, first difference, and second difference.

Table 3: Unit Root Test

Variable	Statistics	MacKinnon p-value	Integration Degree	
AHH	-4.88	0.00	AHH	I (0)
IPM	-2.01	0.27	IPM	I (2)
D(IPM)	-2.14	0.23		
D(IPM,2)	-6,16	0.00		
PBI	-0.62	0.81	PBI	I (1)
D(PBI)	3.30	0.05		
PIP	-1.93	0.30	PIP	I (1)
D(PIP)	-3.09	0.07		
PKH	-4.30	0.00	PKH	I (0)
PPK	-2.00	0.27	PPK	I (1)
D(PPK)	-2.93	0.08		
PPS	-1.49	0.48	PS	I (1)
D(PPS)	-2.86	0.09		
RLS	-0.20	0.90	RLS	I (1)
D(RLS)	-4.91	0.00		

McKinnon's critical values of 1%, 5%, 10% are -4.58, respectively; -3.32 and -2.80.
Source: Results of data processing.

The results of the unit root test in table 3 can be seen in two ways. The first method is to compare the value of the test statistics to the critical limit. The second, more straightforward method is to compare the McKinnon p-value to the value of the variable we want to use. In theory, the lower the p-value, the better, because it indicates that the data is steady at the degree under consideration.

At the level known as I (0), variable life expectancy (AHH) and variable PKH are stationary.PBI, PIP, PPK, PPS, and RLS are the stationary variables at the first difference. Finally, the new HDI variable is designated I since it is stationary at the second difference (2). The unit root test findings for all study variables show that the degrees of stationary are different, indicating that the ordinary regression model cannot be utilized to see the link between variables since the relationship that appears is a artificial relationship.

The cointegration test is the following phase, which determines whether the study variables that are not stable at degree 0 or at level have a true long-term relationship. The cointegration test was carried out in this work by running the DF (Dickey Fuller Test) on each model's residues. Because there were four models in this study, the cointegration test was repeated four times. The findings of each model's general model estimation to assess the presence or absence of cointegration are listed below.

Table 4: Static Model Estimation

Variabel	**Model 1 Y = AHH**		**Model 2 Y = RLS**		**Model 3 Y= PPK**		**Model 4 Y = IPM**	
	Koef	t_{stat}	***Koef***	t_{stat}	***Koef***	t_{stat}	***Koef***	t_{stat}
PBI	5.13E-14	2.05*					4.74E-14	3.70**
PIP			-1.29E-14	-1.29E-14			4.68E-15	3.37**
PKH	7.88E-14	2.05*	4.82E-14	3.53***	8.94E-08	10.70***	2.39E-13	12.44***
PPS					2.90E-088	2.87**	1.10E-13	5.27***
c	69.15	166.04	7.54	103.98	897803	4.51.27	64.61	164.41
R^2	0.66		0.65		0.65		0.99	

Source: Results of data processing.

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The residuals from each model are calculated using the four equations shown in table 4. Table 5 shows the stationarity test results for each residue. The test that was performed was the cointegration test.

Table 5: Cointegration Test

Residual DF Test	**t-statistics**	**MacKinnon p-value**
Model 1	-7.358337	0.0029
Model 2	-4.688427	0.0257
Model 3	-6.489124	0.0058
Model 4	-18.97107	0.0001

Source: Results of data processing.

The MacKinnon p-value in table 5 indicates that the four residuals of the four static models that were estimated are stationary. In other words, this cointegration test asserts that all long-term variable relations in each model accurately describe the actual relationship.

Effects in the Short and Long Run

Table 6 shows the error correction model's estimation results for the health sector, which are expressed in equation (2). The coefficient of the error correction term is significant at the 99 percent level as an indicator of the validity of the error correction model. The value of -0.75 indicates that if there was a 100 percent imbalance in the past, the change in life expectancy would be reduced by 75 percent.

Table 6: Health Sector Error Correction Model

	Health Sector Error Correction Model **Y=D(AHH)**	
Variable	***Coeff***	t_{stat}
PBI		
D(PBI)	1.01E-14	1.53
PBI(-1)	9.44E-15	0.68
PKH		
D(PKH)	9.83E-14	1.88
PKH(-1)	-1.64E-13	-3.47*
ECT(-1)	-0.75	-9.26***
c	0.58	12.81
R^2	0.98	

Source: Researcher's Data Processing

The short-term and long-term effects of the contribution assistance program and the family expectancy program on life expectancy can be estimated using the estimation results of the static model shown in table 4 and the estimation results of the error correction model for the health sector shown in table 6.

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Table 7: Short-Term and Long-Term Effects on the Health Sector

Variable Relations	Short Term Effect	Long Term Influence
PBI to AHH	Positive, not significant (1.01E-14)	Positive, significant (9.44E-15 -0.75)/ -0.75 = 0.99
PKH to AHH	Positive, not significant (9.83E-14)	Positive, significant (-1.64E-13 -0.75)/ -0.75 = 1.02

Table 7 shows the results of a calculation of the short- and long-term effects of two poor-aid programs, namely the recipients of contribution assistance (PBI) and the Family Hope Program (PKH), on the health sector's performance as measured by life expectancy. In the short term, it appears that the two programs have no significant impact. On the other hand, the two programs have a long-term positive and significant impact. Returning to the differences between the two programs, it takes a long time to make a difference in life expectancy (Chaves, 2017).

This is consistent with previous research, which found a link between government spending accuracy and a country's level of human development (Gupta, Verhoeven, & Tiongson, 2002). It takes more than a year for poor families who receive assistance in the form of BPJS contributions and access to BPJS health services to see a difference in their health status. Similarly, the PKH program ensures that poor families, particularly pregnant women and children, have access to health care. Although the community benefits immediately, the impact on the health index takes time to determine. As a result, pinpointing the households that the PBI and PKH programs are aimed at requires pinpoint accuracy. The readiness of educational and health institutions must also be emphasized so that the poor can benefit from these two programs.

Table 8 depicts an error correction model for the education sector that relates the PKH and PIP programs to the education sector's performance as measured by average length of schooling.

The ECT coefficient, which is negative and significant, demonstrates the validity of the error correction model. The model's estimation results confirm this, implying that the error correction model can be used to assess the short-term impact.

Table 8: Education Sector Error Correction Model

	Error Correction Model **Y=D(RLS)**	
Variable	***Coeff***	t_{stat}
D(PKH)	-1.26E-13	-0.50
D(PIP)	1.41E-14	0.38
PKH(-1)	1.62E-14	0.27
PIP(-1)	5.70E-14	1.04
ECT(-1)	-0.834015	-3.08*
c	-0.26	-1.00
R^2	0.90	

Table 8 can be used in the same way as the previous model to calculate the short-term and long-term effects of each program. Table 9 demonstrates that the PKH program has a negligible impact on the education sector. Similarly, the PIP program has a significant impact on the performance of the education sector in the short term. However, both the PKH and PIP programs have a significant positive impact on the education sector.

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Table 9: Short-Term and Long-Term Effects in the Education Sector

Variable Relation	**Short Term Effect**	**Long Term Influence**
PKH to RLS	Negative, insignificant (-1.26E-13)	Positive, significant (1.62E-14 - 0.83)/ -0.83 = 1.01
PIP to RLS	Positive, not significant (1.41E-14)	Positive, not significant (5.70E-14 - 0.83)/ -0.83 = 1.01

Source: Results of data processing.

Neither the PKH nor the PIP programs had a significant short-term impact on the education sector. This means that the government must be consistent in overseeing programs like this in order to have a long-term impact. The effectiveness of government spending in this area will be largely determined by recipient criteria confirmation, consistency in providing assistance, and good program monitoring (Mallick & Dash, 2015).

The third model of error correction is used to explain purchasing power. Table 10 in this study shows that in order to explain purchasing power, assistance programs for the poor that are focused on explaining it are the basic food program and the family of hope program.

Table 10: Error Correction Model for Purchasing Power

	Error Correction Model **Y=D(PPK)**	
Variable	***Coeff***	t_{stat}
D(PPS)	3.62E-08	0.31
D(PKH)	2.46E-06	2.49
PPS(-1)	-6.89E-07	-4.10**
PKH(-1)	-1.24E-07	-0.68
ECT(-1)	-0.64	-3.55*
C	10376617	4.62**
R^2	0.90	

The negative and significant ECT coefficients in table 10 demonstrate the validity of the error correction model. The short-term and long-term effects of both the PPS and PKH programs on purchasing power are explained in the method section. Table 11 displays the results of these calculations.

Table 11: Short-Term and Long-Term Effects on Purchasing Power

Variable Relation	Short Term Effect	Long Term Effect
PPS to PPK	Positive, not significant (3.62E-08)	Positive, significant (-6.89E-07 - 0.64)/ -0.64 = 1.01
PKH to PPK	Positive, not significant (2.46E-06)	Positive, significant (-1.24E-07 - 0.64)/ -0.64 = 1.01

The short-term effect of the two aid programs on purchasing power was not significant in the short term, though the effect was positive, similar to the estimation results for the previous model. These two programs have a long-term positive and significant impact on purchasing power, which is roughly equivalent to per capita income. The PKH program, which is expected to increase purchasing power, is only relevant in the long run. This means that there must be consistency in overseeing poor families who receive assistance so that the impact on their purchasing power can be felt in the coming years.

The human development index model is the final model that will be examined in this study. All programs assumed to affect education, health, and purchasing power in this study

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are assumed to influence human development in the end. Table 12 shows the estimation results for the purchasing power index using the PBI, PKH, PIP policies, and the basic food program as explanatory variables in the error correction model.

Table 12: Error Correction Model for HDI

	Error Correction Model Y=D(IPM)	
***V**ariable*	***C**oeff*	t_{stat}
D(PBI)	4.64E-15	0.56
D(PKH)	3.72E-14	0.70
D(PIP)	4.62E-16	0.11
D(PPS)	9.79E-15	2.66
PBI(-1)	2.36E-15	14.67***
PKH(-1)	8.93E-15	17.22***
PIP(-1)	2.80E-15	0.35
PPS(-1)	8.88E-15	1.56
ECT(-1)	-0.798118	-14.23***
C	0.611434	75.40
R^2	0.99	

The error correction model can be used to explain the short-term and long-term effects because the error correction term lag variable appears to be significant at a high level of significance. As a result, the short-term and long-term effects of the four aid programs on the human development index can be calculated, as shown in table 13.

Table 13: Short-Term and Long-Term Effects on the Human Development Index

Variable Relation	Short Term Effect	Long Term Effect
PBI to IPM	Positive, not significant (4.64E-15)	Positive, significant (2.36E-15 -0.79)/ -0.79 = 1.01
PKH to IPM	Positive, not significant. (3.72E-14)	Positive, significant (8.93E-15 -0.79)/ -0.79 =1.01
PIP to IPM	Positive, not significant (4.62E-16)	Positive, significant (2.80E-15 -0.79)/ -0.79 =1.01
PPS to IPM	Positive, not significant (9.79E-15)	Positive, significant (8.88E-15 -0.79)/ -0.79 = 1.01

In the HDI model, none of the aid programs that are assumed to have a significant influence in the short term have a significant influence, which is consistent with the estimation results of the three previous models. The contribution assistance program, the family of hope program, the smart Indonesia program, and the basic food program, on the other hand, have a long-term positive and significant impact. This confirms that it takes time for a program to be felt by the recipients and have an impact on the poor's quality of human development, not just a short-term effect on increasing income or improving access to health infrastructure. This emphasizes the importance of overseeing poor-targeted programs to ensure that they are on track while also maximizing government spending (Meydianawathi and Setyari, 2018).

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4. CONCLUSION

This study examines the impact of selected poor assistance programs on human development in Indonesia. According to the four models developed, none of the programs chosen for this study have a short-term impact on the education sector, health sector, purchasing power, or human development index. On the other hand, in the long run, all of these programs have a significant impact. Long term, the contribution assistance program and the hopeful family program affect life expectancy, the hopeful family program and the smart Indonesia program affect average length of schooling, the basic food program and the hopeful family program affect per capita income, and the four aid programs affect the development index. man. The first meaning is that it takes time for aid programs for the poor to be implemented and have an impact on human development. The second meaning is that there must be monitoring of the accuracy of program targets and the use of funds or the use of aid accessibility so that it can be determined in the long run that aid programs for the poor have an impact on human development.

REFERENCES

[1] Asep, S., Athia, Y., Umbu Reku, R., & Deswanto, M. (2010). *Review of Government's Poverty Reduction Strategies, Policies, and Programs in Indonesia*. Retrieved from
[2] Chaves, R. A. (2017). *Menuju Sistem Bantuan Sosial yang Menyeluruh, Terintegrasi, dan Efektif di Indonesia*.
[3] Conceição, P. (2019). *Human development report 2019 : beyond income, beyond averages, beyond today: inequalities in human development in the 21st century* (9789211264395).
[4] Gupta, S., Verhoeven, M., & Tiongson, E. R. (2002). The effectiveness of government spending on education and health care in developing and transition economies. *European Journal of Political Economy, 18*(1), 717-737.
[5] Lengfelder, C. (2016). *Policies for human development*. Retrieved from New York:
[6] Mallick, L., & Dash, D. P. (2015). Does Expenditure on Education Affect Economic Growth in India? Evidence from Cointegration and Granger Causality Analysis. *Theoretical and Applied Economics, XXII*(4), 63-74.
[7] Meydianawathi, L. G., & Setyari, N. P. W. (2018). Effectiveness of Household-Based Poverty Programs: Lesson Learn from Indonesia. *Jurnal Ekonomi Pembangunan: Kajian Masalah Ekonomi dan Pembangunan, 19*(2). doi:10.23917/jep.v19i2.5230
[8] Pezzini, M. (2019). *Social Protection System Review of Indonesia* (9789264970458). Retrieved from Paris: https://www.oecd-ilibrary.org/development/social-protection-system-review-of-indonesia_788e9d71-en
[9] Ranis, G., Stewart, F., & Ramírez, A. (2000). Economic Growth and Human Development. *World Development, 28*(2), 197-219.
[10] Supriyanto, R. W. (2014). *Perlindungan sosial di Indonesia : tantangan dan arah ke depan* (9786021763827).
[11] Widianto, B. (2018). *PROGRAM BANTUAN PEMERINTAH UNTUK INDIVIDU, KELUARGA, DAN KELOMPOK TIDAK MAMPU Menuju Bantuan Sosial Terintegrasi*.

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