Analysis of the effect of the Family Hope Program on extreme poverty in Mimika District

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Abstract

Purpose: This study aims to analyze the impact of the Family Hope Program (PKH) on alleviating extreme poverty in Mimika District. The main focus is to assess the effectiveness of government social assistance in reducing the number of extremely poor families using a panel data approach.

Research methodology: Using panel data analysis methods through Fixed Effects (FE) and Random Effects (RE) models. The selection of the FE and RE models is based on the consideration that panel data allows for controlling unobserved heterogeneity between observation units. The Hausman test will be used to determine the most appropriate model between FE and RE. Data processing in this study was carried out using Eviews version 7.2.

Results: Social assistance through PKH has a significant effect on reducing extreme poverty in Mimika District.The number of extremely poor families decreased from 3,709 families in 2022 to 2,691 families in 2024. Regression results indicate that every increase in PKH assistance contributes to a decrease in the number of extremely poor individuals.The program's effectiveness varies across districts, especially in remote areas with poor infrastructure.

Conclusions: The Family Hope Program (PKH) has proven effective in helping to reduce extreme poverty in Mimika District. The conditional assistance provided through PKH has improved the welfare of beneficiary families, although its effectiveness differs across regions depending on infrastructure and access to basic services.

Limitations: The variation in program effectiveness across districts indicates limitations in infrastructure and access to basic services (education and healthcare), which affect program success.This study does not deeply explore local social, cultural, and economic factors that may also influence program outcomes.

Contribution: Provides empirical evidence on the effectiveness of conditional social assistance (PKH) in reducing extreme poverty in underdeveloped regions. Offers policy recommendations for local governments to better allocate and optimize social assistance programs based on infrastructure conditions and access to public services in each district.

Keywords : *Extreme, Hope, Family, Mimika, Poverty, Program*

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1. Introduction

Government policy refers to the actions formulated and implemented by provincial, district/city, or village governments. These policies are designed to meet the needs of the community in their respective regions and aim to enhance the well-being of the population. The substance of local government policies

can vary depending on the issues or problems encountered in the region. (Saputra et al., 2022). The government plays a crucial role in ensuring the continuous provision of quality services to all citizens, irrespective of their ethnicity, religion, or race, in accordance with the mandate of the law.

With the increasing population, social issues have also escalated in various sectors, one of the most significant being poverty. Poverty remains a persistent problem for the nation over time. Despite governmental transitions, the social issue of poverty has yet to be effectively addressed. The synergy between the central and regional governments has not been optimal, leaving many marginalized communities trapped in poverty. Given these issues, it is expected that the government can enhance services for the poor, including the formulation of policies and tangible roles that can address this social problem. Through concrete government action, it is hoped that poverty can be minimized as much as possible, thereby reducing the poverty rate in Indonesia and ensuring that all citizens have access to a decent living, contributing to national progress.

1.1. Problem Formulation
1. What is the development of the Family Hope Program (PKH) and extreme poverty in Mimika District?
2. Does the Family Hope Program (PKH) affect poverty levels?

1.2. Research Objectives
1. To understand and analyze the development of the Family Hope Program (PKH) and extreme poverty in Mimika District.
2. To analyze the impact of the Family Hope Program (PKH) on influencing poverty levels.

1.3. Research Benefits
The outcomes of this research are expected to provide valuable contributions both theoretically and practically. Theoretically, the author hopes to formulate concrete policies to address poverty issues in Mimika District, particularly within the region. Practically, the government can implement policies aimed at providing maximum service that directly impacts marginalized communities in order to reduce poverty, thus fostering equitable development in terms of income distribution, human resources, and cultural advancement.

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2. Literature Review
2.1. Social Dynamics of Society
Social dynamics refers to the social changes that occur as a result of interactions between two or more individuals in a society who have a clear psychological connection within the context they are

experiencing. In social dynamics, social interaction, social groups, and social classes can occur. Both rural and urban communities experience social dynamics. The mutual influences occurring during interactions between individuals and groups result in social dynamics. The forms of social dynamics include social values and norms, individual and organizational behavior patterns, social class structures, and governance systems within a society. The development of science and technology is a major factor driving social dynamics. The impact of social dynamics can be either positive or negative for society. Concrete manifestations of social dynamics include changes in population size, changes in population quality, changes in governance structures, changes in livelihoods, changes in population composition, and more. Surjono Sukanto argues that social dynamics are social changes in society that face various forms of problems, whether at the individual or group level, causing social order within society to not function properly.

One of the factors contributing to social dynamics is the increase in population size. As the population increases, so does the scale of social dynamics, both negative and positive. One negative factor that may emerge is the rise in poverty rates. A large population exacerbates poverty problems. Countries with large populations typically have higher poverty rates than those with smaller populations. Population size is a crucial indicator in any country. Poverty is a fundamental issue for countries worldwide, especially in developing nations, including Indonesia. For Indonesia, poverty has long been a persistent issue. Nearly every administration in Indonesia has identified poverty as a development problem (Suhandi, Putri, & Agnisa, 2018).Poverty refers to a condition where an individual or group is unable to meet their daily needs for food, clothing, and shelter. Poverty results in a lower standard of living, with limited access to essential needs. A significant portion of the population lives below the poverty line, with many having low incomes.

While the worst poverty is found in developing countries, evidence of poverty exists in all regions. In developed countries, this condition is manifested in homelessness, with people wandering in poor urban outskirts and ghettos. Poverty can be seen as a collective condition of the poor or a group of poor individuals, and in this sense, entire countries are sometimes considered poor. To avoid this stigma, these countries are often referred to as developing countries. Poverty cannot be understood using a single dimension or indicator. Poverty is a complex issue that requires multidimensional indicators. The most commonly used indicators are global indicators that employ a monetary approach, such as the poverty line used by the World Bank with a threshold of USD 1.25 Purchasing Power Parity (PPP) or the basic needs approach used in Indonesia. However, these approaches focus solely on income or consumption indicators, and according to Sen (2000), they fail to capture the true root of poverty. To approach poverty holistically, the Multidimensional Poverty Index (MPI) was developed. This concept was first introduced by the Oxford Poverty and Human Development Initiative (OPHI) in collaboration with the United Nations Development Programme (UNDP) in 2010. The main purpose of developing this concept was to map poverty indicators more comprehensively and clearly (Alkire & Santos, 2011). When applied in Indonesia, three indicators are used to understand poverty, namely health, education, and standards of living. These indicators show that a purely monetary and consumption-based approach is insufficient to provide a clear picture of poverty; additional indicators such as health, education, and standards of living are necessary.

2.2. Poverty Theory

Poverty is a condition of economic incapacity to meet the standard of living that is typical for the population of a specific region. This incapacity is characterized by the inability to generate sufficient income to fulfill basic needs, such as food, clothing, and shelter. This low income also results in an inability to meet other living standards, such as public health and education standards. Essentially, living standards in a society are not only defined by the fulfillment of basic nutritional needs but also by the accessibility to health and education services. Adequate housing or living conditions is also an important standard of living or welfare within a community. Based on this condition, a community is considered poor if its income is significantly lower than the average, leading to limited opportunities for its members to improve their well-being.

Generally, each country, including Indonesia, defines what constitutes an individual or community being categorized as poor. This is because poverty is a relative concept that varies across countries, influenced by factors such as economic conditions, welfare standards, and social circumstances. Each definition is determined according to criteria or metrics based on specific conditions, including average income, purchasing power or average consumption capability, education level, and health status.

According to Law No. 24 of 2004, poverty is the socio-economic condition of an individual or a group of people who are unable to meet their basic rights to sustain and develop a dignified life. Basic needs that constitute the rights of individuals or groups include food, health, education, employment, housing, clean water, land, natural resources, a healthy environment, safety from violence or threats, and the right to participate in the social and political life of the community. The Welfare Department Report issued by the Ministry of Welfare in 2004 also explains that the term "poor" applies to those who are employed but earn insufficient income to meet their basic needs..

3. Methodology
3.1. Research Location
This study was conducted in Mimika District, Central Papua Province. Mimika District was chosen as the research location based on the following considerations: (1) Mimika District has a relatively high number of extreme poor individuals, estimated at 12,700 people in 2024, indicating a significant poverty issue that requires intervention; (2) The local government of Mimika District has implemented various social assistance programs, including the Family Hope Program (PKH), aimed at improving community welfare and reducing poverty; (3) Mimika District has unique geographical and socio-economic characteristics that could affect the effectiveness of social assistance programs. Therefore, this study aims to provide a deeper understanding of the role of government social assistance in alleviating poverty in Mimika District.

3.2. Data Sources
Quantitative data in this study includes: (1) The number of extreme poor individuals in Mimika District from 2022 to 2023, sourced from the website (Tutkey, Santoso, & Akib, 2025) or the official sites of TNP2K (National Team for the Acceleration of Poverty Reduction) and P3KE (Targeting of Extreme Poverty Eradication); (2) Data on recipients of social assistance under the Family Hope Program from 2022 to 2024, obtained from the Social Services Department of Mimika District;

3.3. Data Collection Techniques
Data collection for this research was conducted through two primary techniques: (1) Documentary study, which involved gathering and analyzing relevant documents related to social assistance programs, such as program implementation reports, data on social assistance recipients from the Social Services Department of Mimika District, and extreme poverty statistics from the official websites of TNP2K and P3KE;(Sutiyo, 2023) (2) In-depth interviews, conducted with beneficiaries of social assistance programs, as well as community leaders with knowledge of the social and economic conditions in Mimika District. These interviews were designed to gather information on the effectiveness of social assistance programs, the factors influencing program success, and the impact of the program on community welfare, (Habibullah, Yuda, Setiawan, & Susantyo, 2024).

3.4. Data Analysis Method
This study employs panel data analysis using Fixed Effects (FE) and Random Effects (RE) models to analyze the influence of government social assistance on poverty alleviation in Mimika District using the Eviews program application. The choice of FE and RE models is based on the consideration that panel data allows for the control of unobserved heterogeneity between observation units. The Hausman test will be used to determine the most appropriate model between FE and RE (Sihombing & Arsani, 2021). Data processing in this study was performed using Eviews version 7.2. According to Daryanto and Hafizrianda, (Saban & Falatehan, 2023) "Among various dynamic data processing tools, Eviews with its various versions is one of the best programs for dynamic model data processing compared to other programs." In this case, Eviews was also used to facilitate the testing procedures in this study.

The advantages of panel data regression include: first, panel data can explicitly account for individual heterogeneity by allowing for individual-specific variables. Second, the ability to control this heterogeneity enables panel data to be used to test and develop more complex behavioral models. Third, panel data is based on repeated cross-sectional observations (time series), making it suitable for dynamic adjustment studies. Fourth, the high number of observations leads to more informative, more varied data with reduced multicollinearity, and higher degrees of freedom, which results in more efficient estimation. Fifth, panel data can be used to study complex behavioral models. Lastly, panel data can help minimize bias that may arise from aggregating individual data.

The regression equation used to measure the impact of government social assistance, namely the Family Hope Program (PKH), on poverty alleviation (as measured by the number of extreme poor individuals) in Mimika District is as follows:

$$\text{Ln PKH} = \text{Ln } a_{it} + \beta \text{ Ln KME}_{it} + e_{it}$$

Where :
PKH = Family Hope Program
KME = Number of Extreme Poor Individuals
β = Elasticity Coefficient
a = Constant
i = District
t = Time/Period
e = Disturbance Error (Random Disturbance)

1) Panel Data Regression Estimation Method
According to Nachrowi and Usman (2005), several techniques are available for estimating model parameters using panel data, including:
a) Common Effect Model/Pooled Least Square
The simplest approach to panel data processing is to use the ordinary least squares method applied to pooled data, commonly referred to as Pooled Least Squares. The disadvantage of the pooled least squares method is its inconsistency with real-world conditions. Each object is different, and even an object at one point in time may be significantly different from that object at another time (Winarno, 2007). The model equation can be formulated as follows :

$$\text{Ln } Y_{it} = \text{Ln } \alpha + \beta_j \text{ Ln } X_{itj} + \varepsilon_{it}$$

Where :
Y_{it}	: Dependent variable for individual i at time t
X_{itj}	: Independent variable j for individual i at time t
i	: Unit of cross-section (N units)
j	: Time series unit (T periods)
ε_{it}	: Error component for individual i at time t
α	: Intercept
β_j	: Parameter for independent variable j

b) Fixed Effect Model (Fixed Effect)
This method can reveal differences between objects, even with the same regression coefficients. Known as the Fixed Effect regression model, the fixed effect implies that each object has a constant value across different time periods. Similarly, the regression coefficients remain unchanged over time (time invariant). The advantages of this method include the ability to differentiate between individual effects and time effects and the lack of assumption that error components are uncorrelated with independent variables, which may be difficult to satisfy. The disadvantage of this method is that it may not fit real-world conditions. The condition of each object is different, and even an object at one point in time may be very different from that object at another time. The model equation can be formulated as follows:

$$\text{Ln } Y_{it} = \text{Ln } \alpha_i + \beta_j \text{ Ln } X_{itj} + \sum_{ni=2} \alpha_i D_i + \varepsilon_{it}$$

Where:
Y_{it}	: Dependent variable for individual i at time t
X_{itj}	: Independent variable j for individual i at time t

Di   : Dummy variable

εit   : Error component for individual i at time t

α   : Intercept

βj   : Parameter for independent variable j

c) Random Effect Model (Random Effect)

This model accommodates differences in individual and time characteristics by incorporating them into the error term of the model. There are two components that contribute to the formation of the error term: individual and time effects. Therefore, in this method, the error must be decomposed into individual component errors, time component errors, and the general error term.

2) Selection of Panel Data Regression Estimation Method

To determine the appropriate method for estimating panel data regression, several procedures can be conducted, including :

a) Chow Test

The Chow Test is used to choose the appropriate method between Pooled Least Squares (PLS) or Fixed Effects Model (Nugroho, Femala, & Maryani). This test follows an F-statistic distribution. The hypotheses in this study are as follows (Widarjono, 2009) :

Ho : Pooled Least Square (PLS)

Ha :Fixed Effect Model(Nugroho et al.)

If the calculated F-value is greater than the F-table value, it is considered significant, meaning that the null hypothesis is rejected. In other words, accepting the alternative hypothesis (Ha) indicates that estimation using the Fixed Effect Model is better than using Pooled Least Squares estimation.

b) Hausman Test

The Hausman test is used to determine the better method between FEM or REM. This test follows a chi-square distribution with degrees of freedom (k-1). The hypotheses proposed are as follows (Widarjono, 2009) :

Ho = REM

Ha = FEM

If chi-square > 0.05, the null hypothesis (Ho) is accepted, indicating REM as the appropriate model. If chi-square < 0.05, the null hypothesis (Ho) is rejected, and FEM is considered the appropriate model.

c) Lagrange Multiplier (LM) Test

The Lagrange Multiplier (LM) test is used to determine whether REM or PLS is the most suitable method. The significance test for REM was developed by Breusch-Pagan. The Breusch-Pagan method for testing REM significance is based on the residuals from the PLS method. This LM test is based on a chi-square distribution with degrees of freedom equal to the number of independent variables. The hypotheses used are:

Ho = PLS

Ha = REM

If chi-square > 0.05, Ho is accepted, indicating that PLS is the most appropriate method. If chi-square < 0.05, Ho is rejected, and REM is considered the more suitable method.

3) Classical Assumption Test

Classical assumption testing is a method used to determine whether the regression model can generate good linear estimators. Multiple linear regression tests can be conducted after the model in this study meets the classical assumption criteria, such as passing the assumptions of normality, no heteroscedasticity, and no multicollinearity. If the classical assumptions are satisfied, it means the regression model is the Best Linear Unbiased Estimator (BLUE). Thus, before performing multiple linear regression testing, classical assumption testing must first be conducted.

a) Multicollinearity Test

Multicollinearity refers to the condition where independent variables are linearly correlated with each other. The Pearson Correlation criteria for detecting multicollinearity is when the correlation coefficient exceeds 0.9, as stated by (Gujarati, 2003), which is used to identify multicollinearity issues.

b) Heteroscedasticity Test

The heteroscedasticity test is used to examine whether there is unequal variance in the residuals between observations. The assumption in the regression model, as per (Winarno, 2015), is:

- Residuals (e_i) have a mean value of zero;
- Residuals have constant variance or var (e_i) = σ^2, and
- Residuals for any observation are not correlated with those of other observations, or cov.

If assumption (a) is not met, only the slope estimator is affected and does not lead to serious consequences in econometric analysis. However, if assumptions (b) and (c) are violated, it will have significant implications for predictions with the model. In this study, heteroscedasticity is tested using the White test. If the probability value of obs*R-squared > α = 5%, then there is no heteroscedasticity.

c) Normality Test

The normality test is used to test whether the residual variable in a regression model follows a normal distribution. It is known that the t-test and F-test assume that the residuals follow a normal distribution (Santoso, 2015). A regression model is considered good if the independent and dependent variables are normally or approximately normally distributed with a significance value (sig.) > 0.05.

4) Hypothesis Testing

a) t-Test

The t-test is used to test one of the hypotheses in research that employs multiple linear regression analysis. The t-test is used to test each variable individually. The criteria for the t-test results are :

- If the probability < 0.05, it can be stated that there is a partial effect of the independent variable on the dependent variable.
- If the probability > 0.05, it can be stated that there is no partial effect of the independent variable on the dependent variable.

b) F-Test

The F-test is used to test one of the hypotheses in research that employs multiple linear regression analysis. The F-test is used to determine the joint (simultaneous) effect of the independent variables on the dependent variable. The criteria for the F-test results are :

- If the probability value < 0.05, it can be concluded that there is a significant joint effect of the independent variables on the dependent variable.
- If the probability value > 0.05, it can be concluded that there is no significant joint effect of the independent variables on the dependent variable.

c) Coefficient of Determination (Adjusted R Square)

This test aims to determine the proportion or percentage of the total variation in the dependent variable explained by the independent variables. If the analysis uses simple regression, the R-squared value is used. However, if the analysis employs multiple regression, Adjusted R Square is used. The R-squared value ranges from 0 to 1 ($0 < R^2 < 1$). The closer R^2 is to 1, the better the model, and the stronger the relationship between the dependent variable Y and the independent variables.

3.5. Operational Definitions of Variables

Operational definitions are crucial in any research as they provide a clear framework for measuring the variables being studied. In the context of this research, which focuses on analyzing the role of government social assistance in poverty alleviation in Mimika District, operational definitions are required to ensure that each variable is measured consistently and accurately. The variables in this study are as follows:

a) Social Assistance

Social assistance, according to the Ministry of Home Affairs Regulation No. 32 of 2011, as amended by Regulation No. 39 of 2012 regarding guidelines for granting grants and social assistance sourced from the regional revenue and expenditure budget, refers to the provision of non-continuous and selective assistance in the form of money or goods to the community aimed at improving their welfare. In this study, the variable "Social Assistance" is measured based on the number of beneficiaries of the social assistance program, namely the Family Hope Program (PKH) in Mimika District, and the total amount of assistance distributed from 2022 to 2024.

b) Poverty

According to BPS (Central Bureau of Statistics), poverty is defined as a condition where an individual or a group of people is unable to meet their basic rights to sustain and develop a dignified life. The "Poverty" variable in this research is measured using data from the National Social and Economic Survey (Susenas), which includes household consumption expenditures. This data will indicate the number of individuals living in extreme poverty conditions in Mimika District.

4. Result and Discussion
4.1. Analysis Result
4.1.1. Panel Data Model Selectin Test for the Impact of PKH on Extreme Poverty
P The panel data model selection test was conducted in two stages, which can be explained as follows:

First, the Chow test was conducted using the Chi-Square test to choose between the Common Effect Model (Marfuah et al.) and the Fixed Effect Model (Nugroho et al.), with the hypotheses tested as follows:

Table 1. Results of the Chow Test

Redundant Fixed Effects Tests
Pool: POOL01
Test cross-section fixed effects

Effects Test	Statistic	d.f.	Prob.
Cross-section F	57.995525	(17,35)	0.0000
Cross-section Chi-square	182.148223	17	0.0000

Sumber: Eviews, (diolah)

H0 : Common Effect Model
H1 : Fixed Effect Model
Decision:
Since the p-value = 0.0000 < 0.05, we reject Ho and accept H1. This indicates that the Fixed Effect Model is more appropriate than the Common Effect Model.

Second, after the Chow test and determining that the Fixed Effect model is the correct model, the next step is to test which model, between Fixed Effect (Nugroho et al.) and Random Effect (REM), is the most appropriate. This test is called the Hausman test, with the hypotheses tested as follows:

Table 2. Results of the Hausman Test

Correlated Random Effects - Hausman Test
Pool: POOL01
Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	13.859321	1	0.0002

Cross-section random effects test comparisons:

Variable	Fixed	Random	Var(Diff.)	Prob.

PKH?	-0.129623	-0.107326	0.000036	0.0002

Source: Eviews, (processed)

H0 : Random Effect Model
H1 : Fixed Effect Model
Decision:
Since the p-value = 0.0002 < 0.05, we reject Ho and accept H1. This means the Fixed Effect Model is more suitable than the Random Effect Model. Therefore, we conclude that the most appropriate panel data regression model to use for analysis is the Fixed Effect Model.

4.1.2. Panel Data Regression Test Result for the Impact of the Family Hope Program (PKH)on Extreme Poverty

In efforts to address extreme poverty in Mimika District, the Family Hope Program (PKH) has been one of the key initiatives launched by the government. This program aims to provide financial support to poor families through conditional financial aid, with the hope of improving welfare and reducing poverty in Mimika District. The results of the estimation of the regression model for the Impact of PKH on Extreme Poverty can be seen in the table below:

Table 3. Fixed Effect Model Panel Data Regression Results for the Impact of PKH on Extreme Poverty

Dependent Variable: KME?
Method: Pooled Least Squares
Date: 05/01/25   Time: 21:23
Sample: 2022 2024
Included observations: 3
Cross-sections included: 18
Total pool (balanced) observations: 54

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	197.6236	7.110911	27.79161	0.0000
PKH?	-0.129623	0.032391	-4.001872	0.0003
Fixed Effects (Cross)				
_MBR--C	-95.59558			
_MBJ--C	96.05184			
_MBT--C	-55.43030			
_AMR--C	-13.32660			
_MMT--C	120.0912			
_MTG--C	98.10669			
_MTJ--C	108.7721			
_MRU--C	636.8312			
_KUK--C	-76.45784			
_TBG--C	-125.6698			
_WNI--C	-9.342794			
_IWK--C	-68.40247			
_KNR--C	-118.2084			
_AGA--C	-140.7780			
_JLA--C	-89.80090			
_JTA--C	-62.90345			
_ALM--C	-95.41445			
_HYA--C	-108.5225			
Effects Specification				
Cross-section fixed (dummy variables)				
R-squared	0.971053	Mean dependent var		176.2963
Adjusted R-squared	0.956165	S.D. dependent var		165.2360

S.E. of regression	34.59497	Akaike info criterion	10.19536
Sum squared resid	41888.42	Schwarz criterion	10.89519
Log likelihood	-256.2748	Hannan-Quinn criter.	10.46526
F-statistic	65.22731	Durbin-Watson stat	1.940554
Prob(F-statistic)	0.000000		

Source: Eviews, processed

The results of the panel data regression equation show that the coefficient of the government social assistance variable through the Family Hope Program (PKH) is significantly and negatively associated with extreme poverty, indicated by a p-value (Sig.) of 0.0003, which is less than $\alpha =$ 0.05, with a coefficient of -0.129623. This means that if PKH assistance increases by one unit, the number of extreme poor people will decrease by 0.013171. The coefficient of determination or adjusted R^2 shows that R-squared is 0.971053, meaning that 97.11% of the variation in extreme poverty can be explained by this model.

Based on the output in Table 4.5, the probability (Sig.) value of the F-statistic test for the impact of the Family Hope Program (PKH) on extreme poverty is 0.000 < 0.05, so it can be concluded that the Family Hope Program (PKH) has a significant simultaneous effect on extreme poverty. The results of the panel data regression for the impact of the Family Hope Program (PKH) on extreme poverty in Mimika District also show variation in coefficients across districts. While the cumulative results of the panel data regression indicate a significant impact, some districts show positive coefficients, indicating that the Family Hope Program (PKH) has not yet fully succeeded in reducing extreme poverty in those areas.(Bakhri, Nasrulloh, & Pratista, 2025)

The lowest coefficient was found in the Agimuga district, with a value of -140.778. This indicates a significant negative effect, suggesting that the Family Hope Program (PKH) has been highly effective in reducing extreme poverty in this region. The large reduction suggests that the people in Agimuga have felt tangible benefits from the program. Next, Tembagapura has a coefficient of -125.6698, also showing a significant positive impact, indicating that the Family Hope Program (PKH) successfully helped reduce extreme poverty. However, this reduction still needs to be strengthened with additional interventions to achieve optimal results (Falentina & Resosudarmo).

The coefficient of -118.2084 for Kwamki Narama shows that the Family Hope Program (PKH) has contributed to reducing extreme poverty, although the impact is not as significant as in Agimuga and Tembagapura. This indicates that there is potential for increasing the program's effectiveness in this district. The coefficient of -108.5225 for Hoya suggests that the Family Hope Program (PKH) has a positive impact on reducing extreme poverty, though it is not as strong as the previous districts. This indicates that the program is still relevant but needs more attention.

On the other hand, the district of Mimika Timur Jauh has a coefficient of 108.7721, showing a less effective positive impact on reducing extreme poverty. This coefficient suggests that further evaluation is needed to understand the challenges in this region. Mimika Baru has a coefficient of 636.8312, indicating a positive impact, but also reflects challenges that need to be addressed to ensure the effectiveness of the Family Hope Program (PKH). This positive coefficient suggests that while there are benefits, the program may not have produced the expected results.

Mimika Tengah has a coefficient of 98.10669, indicating an improvement, but also reflecting challenges that need to be addressed to ensure the effectiveness of the program in this area. The positive coefficient for Mimika Timur, with a value of 120.0912, suggests that although there is a positive impact, the Family Hope Program (PKH) has not fully functioned effectively in reducing extreme poverty. Jila district has a coefficient of -89.8009, showing a negative impact, indicating a reduction in extreme poverty, but the impact is relatively smaller compared to other districts. Kuala Kencana, with a value of -76.45784, suggests that the Family Hope Program (PKH) contributes to the reduction of extreme poverty, although the impact is more limited.

Iwaka has a coefficient of -68.40247, indicating a positive impact, but not as strong as districts with more negative coefficients. Wania, with a coefficient of -9.342794, shows a small negative impact, suggesting that the Family Hope Program (PKH) may not yet be fully effective in this district. Amar has a coefficient of -13.3266, indicating a negative impact but with a smaller effect compared to other districts, suggesting that the Family Hope Program (PKH) needs strengthening in this area. Mimika Barat Tengah, with a coefficient of -55.4303, shows that the Family Hope Program (PKH) has a positive impact, but it is not significant compared to other districts.

Mimika Barat, with a coefficient of -95.59558, shows that the Family Hope Program (PKH) works to reduce extreme poverty, but the impact still needs to be enhanced. The district of Jita, with a coefficient of -62.90345, shows that the Family Hope Program (PKH) has a negative impact, but with a lower reduction compared to districts with lower coefficients. Finally, Mimika Barat Jauh has a coefficient of 96.05184, suggesting that in this district, the Family Hope Program (PKH) may not yet have the expected impact on reducing extreme poverty (Shah, Hatamyar, Hidayat, & Kreif, 2025).

Overall, the regression analysis of coefficients in each district in Mimika District shows varying impacts of the Family Hope Program (PKH) across districts, with some districts experiencing significant benefits, including Mimika Barat, Mimika Barat Tengah, Amar, Kuala Kencana, Tembagapura, Wania, Iwaka, Kwamki Narama, Agimuga, Jila, Jita, Alama, and Hoya. Meanwhile, other districts such as Mimika Barat Jauh, Mimika Timur, Mimika Tengah, Mimika Timur Jauh, and Mimika Baru face challenges that need to be addressed to increase the impact of the Family Hope Program (PKH).

The Family Hope Program (PKH), as part of the national social protection program, has made a significant contribution to reducing extreme poverty in Mimika District. In general, PKH acts as an instrument of state intervention for the poorest and most vulnerable groups of society, using a conditional cash transfer approach that aims not only to provide direct cash assistance but also to encourage behavioral changes, especially in the areas of education and health. From the research results and panel data analysis conducted, it can be concluded that PKH has a significant negative effect on extreme poverty levels. In other words, the larger the coverage and distribution of PKH assistance, the lower the extreme poverty rate in Mimika District. This indicates the effectiveness of PKH in alleviating the economic burden of beneficiary families and providing them with the opportunity to gradually escape absolute poverty.

PKH has successfully improved access to basic services for the poor. Pregnant women, children, the elderly, and people with disabilities who are the primary target groups of the program have shown increased participation in health and education services. With the fulfillment of basic needs such as immunization, pregnancy check-ups, and children attending school, PKH has helped create a strong socio-economic foundation for the next generation of poor families (Cahyadi et al., 2020). A significant indirect impact of this program is the increased social awareness among the poor to become more active in productive economic activities. Some beneficiaries have used part of the PKH funds to support micro-enterprises and household capital needs, such as selling food, opening small shops, or engaging in small-scale animal husbandry. Although its contribution to income is not yet large, this demonstrates the multiplier effect of the program on economic independence.

However, the implementation of PKH in Mimika has not been fully consistent in its results. There are differences in effectiveness across districts, influenced by factors such as the quality of social assistants, infrastructure access to public services, and the validity of beneficiary data. For instance, some remote districts with limited access to education and health facilities, coupled with limited assistant capacity, show lower program effectiveness. Additionally, there are still technical challenges such as data discrepancies, delays in distribution, and communication gaps between assistants and beneficiaries.

Overall, PKH is a highly relevant and adaptive program for addressing extreme poverty in complex regions such as Mimika District. Its effectiveness is evident from the significant impact on reducing extreme poverty rates in the quantitative data, as well as improved accessibility to basic services and welfare in qualitative terms. However, the sustainability and improvement of the program's effectiveness require institutional improvements, strengthening of data systems, and cross-sector synergy, including collaboration with local economic empowerment programs, infrastructure development, and capacity-building at the local level (Anggraeni, Khusaini, & Prasetyia, 2023)

5. Conclusion and Recommendations

5.1. Conclusion

In the context of social development, poverty is a critical issue that needs to be addressed. Mimika District, with its unique geographic and demographic characteristics, faces challenges in reducing poverty levels. Through the analysis of extreme poverty data and the Family Hope Program (PKH) from 2022 to 2024, we can identify the extent to which poverty alleviation efforts have succeeded and areas that still require more attention. The following conclusions summarize the key findings from the analysis.

1. Poverty in Mimika District occurs as a result of a combination of interrelated factors, including unequal access to basic services such as education and health, especially in remote districts. This is evident from the variation in the effectiveness of the Family Hope Program (PKH), where districts with inadequate infrastructure show lower program impacts. The government's social assistance through the Family Hope Program (PKH) has a significant effect on alleviating poverty in Mimika District. Data analysis shows that the number of families living in extreme poverty decreased from 3,709 families in 2022 to 2,691 families in 2024. This reflects the effectiveness of the Family Hope Program (PKH) in providing conditional financial assistance that helps improve the welfare of beneficiary families. Regression results indicate that every increase in PKH assistance contributes to a reduction in the number of people living in extreme poverty (Hadna, 2022).

2. The government has played a comprehensive role in poverty alleviation efforts in Mimika District through various policies and concrete actions. The Family Hope Program (PKH) serves as tangible proof of the government's commitment to reducing extreme poverty in the district. PKH does not merely provide cash assistance but is systematically designed as conditional aid that encourages behavior change in poor communities, particularly in education and health. In its implementation, the government has not only focused on financial assistance. PKH has also successfully increased access to basic services such as health and education for the poor. Increased participation in immunization programs, pregnancy check-ups, and school attendance demonstrates that this program has successfully created a long-term foundation to break the cycle of poverty by improving human capital. However, challenges remain in the distribution of program benefits, which have not been evenly distributed across all districts. Some areas, such as Agimuga and Tembagapura, have shown significant poverty reduction, while districts like Mimika Timur Jauh and Mimika Baru still face challenges in program effectiveness. This indicates the need for a more specific and intensive approach in certain areas. The government has recognized these challenges and started taking corrective actions, including strengthening the social assistance system, improving the validity of beneficiary data, and building synergy with other development programs. Efforts to integrate PKH with economic empowerment programs such as skill training and micro-enterprise capital access demonstrate the government's commitment to creating more holistic solutions(Soekiman, 2023).

5.2. Recommendations

5.2.1. Academic Recommendations

- Further research should delve deeper into the factors affecting the Family Hope Program (PKH) in districts that show poor results. This research could include qualitative approaches to understand the local socio-economic context.
- Development of a theoretical model explaining the relationship between social assistance and poverty alleviation. This could help formulate more effective strategies for future social programs.

- Utilize broader data to analyze the long-term impacts of the Family Hope Program (PKH) and other programs. This data could provide insights into poverty trends and socio-economic dynamics over a longer period.

5.2.2. Practical Recommendations
- Increase program socialization by conducting more intensive awareness campaigns to enhance public understanding of the Family Hope Program (PKH), including registration procedures and available benefits.
- Provide training for beneficiaries on financial management and relevant skills to help them better utilize the assistance and increase their income.
- Implement an effective monitoring system to evaluate the impact of the Family Hope Program (PKH) periodically. This will help identify issues and make necessary adjustments quickly.
- Collaborate with non-governmental organizations (NGOs) and local organizations to expand the program's reach and ensure that aid reaches the families most in need.

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