### **Journal of Indonesian Applied Economics**

#### Vol. 9, No. 1, February 2021, page. x-x

# Determinants of Household Poverty Status in Kediri City

### <sup>1</sup>Rozanti, Yennie Dwi, <sup>2</sup>Khusaini, Mohamad, and <sup>3</sup>Prasetyia, Ferry

<sup>1</sup>Development Planning Agency of Kediri City, Kediri <sup>2</sup>University of Brawijaya., Malang <sup>3</sup>University of Brawijaya., Malang

#### ARTICLE DETAILS

Article History Published Online: publisher use onlv

#### Keywords

household poverty status, logistic ordinal, micro data, social welfare integrated data, village potential data

\*Corresponding Author

Email: yenniedwi@gmail.com

### ABSTRACT

Analyses of the causes and the characteristics of poverty at micro levels provide more efficient strategies for the attainment of main Sustainable Development Goals. This study aimed to analyze the extent to which the characteristics of individuals, households, and communities influence the probability of household poverty status. The 2019 Social Welfare Integrated Data and Village Potential Data of Kediri City were analyzed using an ordered logit regression model and then interpreted based on marginal effect calculation. The study found that household heads' squared-age, household members' education, household members' occupation, household head gender (female), ownership of assets, access to the internet, access to proper sanitation, and access to financial institutions reduced the probability of households being categorized as very poor and poor. This finding indicated that household productivity influenced by the household head's characteristics in managing productive assets, supported by access to infrastructure, could increase the household's welfare. However, the household head's age and marital status, dependency ratio, and access to health facilities increased household's probability of being very poor and poor. Policies regarding poverty must be adjusted to the poverty characteristics and status. Improving access, equalizing education, and improving job opportunity and infrastructure management that ensure accessibility and enhancement in service quality need to be made to increase the status of households with the lowest 40% welfare in Kediri City. Policies regarding poverty should be focused more on social programs for very poor and poor households. Meanwhile, those near-poor and vulnerable-to-poor need more empowering programs.

#### 1. Introduction

Accurate data on poverty becomes an important instrument to find an effective poverty reduction strategy. The World Bank defines poverty as "the lack of well-being" (Haughton and Khandker, 2012). People are considered prosperous if they can meet their needs based on а comparison between income or consumption per capita and the established poverty standards. In this case, the World Bank (2000) defined poverty as an individual's inability to meet basic needs based on the absolute poverty line, namely the average per capita household consumption of USD1.90. The Central Statistics Agency (BPS) defined the poor

as those an average per capita consumption expenditure per month under the relative poverty line based on regional demographics (Ardi Adji et al., 2020).

Policies that are right on target in overcoming poverty require accurate information through a comprehensive poverty profile based on the characteristics of the causes of poverty, including regional, community, household, and individual characteristics (Haughton and Khandker, 2012). Furthermore, the poverty reduction strategy is carried out by identifying the causes of poverty so that it can accept changes through implemented policiesn (Geda et al., 2001).

Several studies on poverty that use household-based microdata are those conducted by Teka et al. (2019), Biyase & Zwane (2018), Majeed & Malik (2015), Nguyen et al. (2013), and de Silva (2008). Meanwhile, those who use individual-based microdata were conducted by, among others, Espinoza-Delgado & Klasen (2017), Vijava et al. (2014), Hvder & Sadig (2010). Furthermore, Mok et al. (2007) and Sekhampu (2013)examined the determinants of household poverty status in two poverty classifications: poor and non-poor, while Geda et al. (2001), Epo (2011), and Cho & Kim (2017) analyzed three categories of poverty status, very poor, poor, and not poor.

In Indonesia, the measurement of the poverty rate by BPS in 2019 showed that 9.41% of the population was below the poverty line, with the proportions of urban poor and rural poor people were 6.69% and 12.85% respectively (Central Statistics Agency, 2019). Poverty-related problems that occur in Indonesia are the accumulation of poverty in regions in the provinces and lead to poverty in districts/cities.

East Java Province is the area with the highest number of poor people in Indonesia, reaching 32.32% of poverty in Java Island. Among urban areas in East Java Province, the highest poverty rate occurs in Kota Kediri at 7.16%.

Historically, the aggregate poverty in Kota Kediri has decreased and has always been below the provincial and national poverty rates. However, the disparity between residents is still wide, as indicated by the Gini index consistent in the range of 0.4 since 2016.



#### Figure 1. Poverty Rates of Kediri City, East Java Province, and Indonesia, 2015-2019 Source: BPS of Kediri City (2020)

In terms of economic development performance, the economic growth of Kediri City in 2019 reached the highest point, 5.47%, above the provincial and national achievements. Gross Regional Domestic Product Per capita, as a proxy for the level of population prosperity, was also the highest in East Java and the thirdhighest nationally. Kediri had also the lowest inflation rate in Java and Bali (1.83%). The Faculty of Economics and Business, Brawijaya University quality of human capital, as indicated by the Human Development Index (HDI), was in the high category (78.08), higher than that of Jawa Timur (71.5) and Indonesia (71.92).



Figure 2. Economic Growth of Kediri City, East Java Province, and National, 2015-2019 Source: BPS of Kediri City (2020)

Ideally, according to Warr (2000), Ravallion & Chen (2003), and Dollar & Kraay (2012), high economic growth is an effective way of reducing poverty. However, this was not the case in Kota Kediri. Its growing economy was only a necessary condition, not a sufficient condition. meaning that its high economic growth did not quarantee an increase in its people's welfare. When its economic growth trend continued to increase, the trend in the poverty rate was still fluctuating and even tended to be static so that poverty reduction efforts could not be viewed at a macro level from the aggregate level of poverty in an area, thus need to examine micro conditions by looking at the causes of household poverty.

This study focused on poverty analysis using micro-data at the individual level in four categories of poverty status: very poor, poor, near-poor, and vulnerable-to-poor, which had not been widely practiced in Indonesia. Intending to analyze the determinants of poverty based on individual, household, and community characteristics in influencing household poverty status in Kediri City, this study would contribute to disclosing a more comprehensive poverty profile at the individual micro-level.

#### 2. Methods

This study used secondary cross-sectional data from the Social Welfare Integrated Data of October 2019 provided by the Ministry of Social Affairs and the BPS's 2019 Podes. The research sample was 62,205 individuals and 19,730 households in 46 urban villages in Kediri, which were the population with the lowest 40% welfare level in Indonesia.

The determinants of poverty were analyzed to see the probability of household poverty status. The poverty rate categorization was done referring to the poverty concept, namely the ability to meet basic needs (basic needs approach) for food and non-food as measured in terms of expenditure as determined by BPS, where people who have an average monthly per capita expenditure below the Poverty Line (GK) are called the poor.

The response variable (Y) consisted of four categories of poverty status, namely very poor, poor, near-poor, and vulnerable-to-poor households obtained by comparing the average per capita consumption expenditure of the population with the poverty line of Kediri City in 2019 of Rp471.893,00 as follows:

- a. Very Poor Households (RTSM), whose expenditure per capita/month <0.8 PL;
- b. Poor Households (RTM), whose 0.8 PL ≤ expenditure per capita/month <1 PL;
- c. Near-Poor Households (RTHM), whose 1 GK ≤ expenditure per capita/month <1,2 PL;
- d. Other Vulnerable-to-Poor Households (RTRML), whose 1,2 PL ≤ expenditure per capita/month ≤ 1,6 PL.

Furthermore, poverty status was determined based on the level of welfare based on the percentile order in the Social Welfare Integrated Data.

The predictor variable (X) was the determinant of poverty from the characteristics of individuals, households, and communities as defined in Table 1.

Table 1.	Operational	<b>Definition of</b>	Variables
----------	-------------	----------------------	-----------

Variable	Definition
Variable Y :	
Household poverty statu	us (poor)
4 = Very poor	Household per capita expenditure
3 = Poor	Household expenditure per capita ≥0.8 PL/percentile 5
2 = Near-poor	1PL≤ per capita household
1 = Vulnerable-to-	expenditure <1,2 PL/percentile 8 1,2 PL≤ per capita household expenditure ≤1 6 PL/percentile 22
Variable X :	
Individual Characteris	tics
Household member's	Length of schooling of household
education	members according to the last
	education completed based on
	diploma (Numeric)
Household member's	ART bekerja selama seminggu
occupation	(1= Bekerja, 0= Tidak bekerja)
Household Characteri	stics
age, squared-age,	Household head's age
and	Household head's squared-age
	(Numeric)
gender of household	household head gender
head	(1=female, 0= male)
household's marital	household head' marital status (1 =
status	married, 0 = not yet
	married/divorced/divorced)
dependency	Dependency ratio: comparison of the
	number of household members at
	non-productive ages (0-14 years &>
	64 years) with household members at
	productive ages (15-64 years)
	(Numerical)
asset	Residence ownership status (1 =

Variable	Definition			
	own, 0 = not own)			
Community Characteristics				
internet	Household access to communication			
	networks/internet			
	(1 = having access, 0 = no access)			
sanitation	Household access to proper			
	sanitation based on ownership of			
	defecation facilities $(1 = own, 0 = not)$			
	own)			
health facilities	Household access to health facilities			
	in the Kelurahan (Numeric)			
financial institutions	Access to financial institutions based			
	on the existence of commercial banks			
	and BPRs in the Kelurahan (Numeric)			

The model chosen was the Ordered Logit Regression as used by Geda *et al.* (2001), Epo (2011), Dartanto & Nurkholis (2013), and Cho & Kim (2017) as follows:

 $\begin{array}{l} \text{poor=} \ \beta_0 + \ \beta_1 \text{HHeducation} + \ \beta_2 \text{Hhoccupation} + \\ \beta_3 \text{HHage} + \ \beta_4 \text{HHsquaredage} + \\ \beta_5 \text{HHgender} + \ \beta_6 \text{HHmaritalstatus} + \\ \beta_7 \text{dependency} + \ \beta_8 \text{asset} + \ \beta_9 \text{internet} + \\ \beta_{10} \text{sanitation} + \ \beta_{11} \text{healtfacilities} + \\ \beta_{12} \text{fincancialinstitutions} + \epsilon \end{array}$ 

### 3. Findings

Household poverty status as the dependent variable was dominated by near-poor households with the proportion as shown in Figure 3.



Figure 3. Household Poverty Status

Source: Social Welfare Integrated Data of Kediri City (2019), processed.

The results of the estimation using ordered logit regression were obtained from the coefficient value and the marginal effect. The directions of the influence of the independent variables on the dependent variable, which was set in sequence with a value of 1 = vulnerableto-poor, 2 = near-poor, 3 = poor, and 4 = very poor, were shown by the coefficient value in Table 4. The independent variables, whose regression coefficients were positive and affected significant, poverty status and increased a household's probability of being poorer. These variables were household head's marital age. household head's status, dependency, and health facilities. Meanwhile, those, whose regression coefficients were negative and significant, affected poverty status and reduced household opportunities of being

poorer. They were ho	household member's	Der's Independent	Marginal Effect ((dy/dx)/Std.Err)			
education, household me	ember's occupa	ition, variable	Vulnerable- to-poor	Near-poor	Poor	Very poor
household head's gende sanitation and financial ins	er, assets, inte titutions	rnet, <i>internet</i>	0.0080988***	0.0071198***	-0.0073523***	-0.0078663***
Table 2. Estimation Resu	Its of Determina	ants sanitation	0.0754931*** (0.00166)	0.0954676*** (0.00297)	-0.0752021*** (0.00185)	-0.0957586*** (0.00273)
of Household Poverty Si Using Coeff	tatus in Kediri C icients	Health facilitie	s <sup>-0.0020369***</sup> (0.00012)	-0.0016768*** (0.0001)	0.0018116 <sup>***</sup> (0.00011)	0.0019021*** (0.00011)
Dependent Variable: poor	Coefficients	Standard <sup>nancial</sup> error <sup>institutions</sup>	0.0034933***	0.0028757***	-0.0031069***	-0.0032622***
Independent variables			(0.0000)	(0.00041)	(0.00044)	(0.00040)

Standard errors in parentheses \*\*\* p<0.01, \*\* p<0.05, \* p<0.1 Source: STATA 16 processed data

For individual characteristics, the addition of 1 year of schooling reduced a household's probability of being very poor and being poor by 0.94% and 0.89%, respectively, and increased

Independent variables :		
Individual Characteristics		
household member's education	-0.0890***	(0.00180)
household member's occupation	-0.0748***	(0.0168)
Household Characteristics		
household head's age	0.0564***	(0.00429)
household head's squared- age	-0.000574***	(0.000038)
household head's gender	-0.0683***	(0.0261)
household head's marital status	0.753***	(0.0255)
dependency	0.513***	(0.0157)
asset	-0.316***	(0.0167)
Community Characteristics		
internet	-0.0731***	(0.0226)
sanitation	-0.775***	(0.0189)
health facilities	0.0180***	(0.00107)
financial institutions	-0.0309***	(0.00438)
/cut1	-1.059***	(0.120)
/cut2	1.739***	(0.120)
/cut3	2.838***	(0.121)
Observations	62 205	

Standard errors in parentheses

\*\* p<0.01, \*\* p<0.05, \* p<0.1

Source: STATA 16 processed data

The results of the marginal effect calculation showed the role of the independent variable in increasing or decreasing household poverty status as shown in Table 3.

#### Table 3. Results of estimation of the **Determinants of Household Poverty Status** in Kediri City using the Marginal Effect Marginal Effect ((dv/dx)/Std Err

Independent variable	Vulnerable-	Near-poor	Poor	, Very poor
	10-0001			
Individual Ch	aractoristics			
	0 0100551***	0 0082775***	-0 0089/27***	-0 0003808***
household	0.0100001	0.0002115	-0.0003427	-0.0033030
member's				
education				
	(0.00021)	(0.00021)	(0.0002)	(0.0002)
household	0.0084823***	0.0068887***	-0.0075107***	-0.0078603***
member's	(0.00400)	(0.00454)	(0.00100)	(0.00470)
Occupation	(0.00192)	(0.00154)	(0.00169)	(0.00176)
Characteristic	~e			
household				
head's age	-0.0063654***	-0.00524***	0.0056612***	0.0059442***
0	(0.00049)	(0.00041)	(0.00043)	(0.00045)
household	0.0000648***	0.0000533***	-0.0000576***	-0.0000605***
head's				
squared-age	(0.00000)	(0.00000)	(0.00000)	(0.00000)
Household				
nead s	0.0070000**	0.0004.000***	0.0000520***	0.0074000***
gender	0.0078296	(0.0061269	-0.0068538	-0.0071026
household	-0.0975653***	-0.0445027***	0.0725382***	0.0695298***
head's				-,
marital				
status	(0.00376)	(0.00126)	(0.00237)	(0.00212)
dependency	-0.0579847***	-0.0477336***	0.05157***	0.0541483***
	(0.0018)	(0.00164)	(0.00165)	(0.00169)
asset	0.0349106***	0.0310574***	-0.0317077***	-0.0342604***
Community	(0.00101)	(0.00170)	(0.00109)	(0.00107)

Community Characteristics

Faculty of Economics and Business, Brawijaya University

the probability of being vulnerable-to-poor and beina near-poor by 1.01% and 0.83%, respectively, at a significance of 1%. Meanwhile, household member's occupation reduced a household's probability of being poor and very poor by 0.75% and 0.79%, respectively, at the 1% significance level but increases the probability of becoming near-poor and vulnerable-to-poor by 0.69% and 0.85%, respectively. Household characteristics, in the variable household head's age, indicate that an increase in 1 year of age increased the chance of a household to be poor and very poor by 0.57% and 0.59%, respectively but decreased the chance of a household to be more prosperous or to become almost poor and vulnerable to poverty

by 0.52% and 0.64% at the 1% significance level. The variable squared-age shows that a 1vear increase in household head's age after reaching the turning point age reduced the household's chance of becoming poor and very poor by 0.006% and increases the chances of getting more prosperous or being categorized as near-poor and vulnerable-to-poor by 0.005% and 0.006%, respectively. Meanwhile, the variable household head's gender shows that a female household head reduced her household's probability of being poor and very poor by 0.69% and 0.71%, respectively, and increased the probability of being near-poor by 0.61% at the 1% significance level and of being vulnerable-to-poor by 0.78% at a significance level of 5%. Meanwhile, the variable household head's marital status shows that a married household head tended to increase the household's chance of becoming very poor and poor by 6.95% and 7.25%, respectively, and, conversely, reduced the chances of becoming vulnerable-to-poor and near-poor by 9.76% and 4.45%, respectively, at the 1% significance level.

A household characteristic other than the household head's character. namelv dependency, shows that every increase in the number of the unproductive household members by 1 increased the household's chance of being categorized as very poor and poor by 5.41% and 5.16%, respectively, and lowered the chance of being nearly poor and vulnerable to poverty by 4.77% and 5.80%, respectively. Meanwhile, the variable asset shows that each household having its own residence decreased its probability of being very poor and poor by 3.43% and 3.17%, respectively, and, conversely, increased its probability of becoming near-poor and vulnerable-to-poor by 3.11% and 3.49%, respectively, at the 1 percent level of significance.

In terms of community characteristics, access to the internet decreased the probability of being very poor and poor by 0.79% and 0.74%, respectively, and, conversely, increased the household's probability of being near-poor and vulnerable-to-poor by 0.71 % and 0.81%, respectively, at the 5% significance level. Owning a defecation facility reduced a household's probability of being extremely poor and poor by 9.58% and 7.52%, respectively, and, conversely, increased the probability of being vulnerable-to-poor and near-poor by 7.55% and 9.55%, respectively, at the 1 percent level of significance. An increase of 1 health facility unit increased a household's probability of being extremely poor and poor by 0.19% and 0.18%, respectively, and, conversely, decreased the probability of being near-poor and vulnerable to poverty by 0.17% and 0.20%, respectively, at the 1% significance level. An increase in the number of financial institutions by 1 in the Kelurahan in which households lived decreased a household's probability of being very poor and poor by 0.33% and 0.31%, respectively, and, conversely, increased the probability of being near-poor and vulnerable-to-poor by 0.29% and 0.35%, respectively, at the 1% significance level.

#### 4. Discussion

#### 4.1 The Effect of Individual Characteristics on Household Poverty Status

### 1) Household Members' Education.

Education is a way to get out of poverty (Todaro, 2010). Dartanto & Nurkholis (2013) stated that better education increases the probability of being less poor because higher levels of education increase greater opportunities for better jobs and income.

Household members' schooling duration has a significant effect on household poverty status at the 1% significance level with a negative direction. The longer the household members school the lesser the household poverty. In other words, the higher the education level of household members, the more opportunities for households to be more prosperous. This finding confirmed the study of Bhaumik et al. (2011), which stated that education has succeeded in reducing the probability of becoming poor, where the contribution of household members' education in reducing poverty increases along with the education level. Dimova & Gang (2007) added that higher levels of education provide different returns: tertiary education has a much greater impact than secondary and basic education of household members.

The government needs to prioritize improving the quality of productive, educated, and skilled resource development human through educational investment, both expanding and equitable access, as well as improving the quality of educational services for all. Educational services include the provision of formal education. non-formal education through the kejar paket programs, skills training, and the development of inclusive education.

#### 2) Household members' occupation.

The main type of work is a determining factor for the poverty status of a household. Gounder (2005) stated that the main type of household work determines the amount of income (and expenditure) generated.

Working household members reduce the probability of a household being poorer. They contribute to increasing household income, which leads to increased welfare. This finding was in line with the findings of Sekhampu (2013), which reported that work status has a significant effect on reducing the probability of being categorized as poor.

Butar-Butar (2008) stated that the main employment sector greatly influences the level of household poverty due to different wage levels. Of the 62,260 individuals in Kediri, with the lowest welfare level of 40 percent in Indonesia, 43.13% or 26,827 people were working household members. When viewed from the status of the position in the main job, the majority (39%) were formal workers as private laborers/employees.



Figure 4. Individual Position in Main Job Source: Social Welfare Integrated Data of Kediri City (2019), processed.

Formal sector jobs are considered better than informal ones because they guarantee a steady income. The informal sectors are associated with lower wages and cause households to be unable to meet the needs of a decent life (Taufiq, 2017). Mukherjee & Benson (2003) stated that formal sector jobs contribute to improving household welfare. The results of his research on households in Malawi in 1998 showed the marginal effect of the increasing number of household members working in the formal sectors on a significant increase in per capita consumption rates by 10% in urban areas and 15% in rural areas.

Strengthening human capital through education for the long term is needed in the form of, among other things, the revitalization of vocational schools, including increasing partnerships with the business world and the industrial world as well as linking and matching student competencies according to industrial needs, as well as the provision of skilled and ready-to-use workforces that suit the field needs.

#### 4.2 The Effect of Household Characteristics on Poverty Status

#### 1) Household head's age.

A person's age correlates with his/her productivity at work; household head age is closely related to household poverty (UNDP, 2015). At productive ages, a household head can accumulate resources so that he has a greater chance of becoming not poor. However, getting older (or after retirement), a person's ability to accumulate sufficient resources or assets to become non-poor becomes lower than his at younger agesa (Majeed & Malik, 2015).

Household head age has a significance of 1% in affecting the household poverty status in a positive direction, but household head squaredage does that in the negative direction. This means that as the household head gets older, the level of household poverty increases and then decreases at an advanced age. It is interesting to note that in Kediri City, the effect of household head age forms an inverted U curve, where the higher the age of a household head, the greater the household's chance of being poor. It continues until reaching a certain age, namely 49 years, and the effect turns down to be more prosperous.

This finding contradicted Sekhampu (2013), Sakuhuni *et al.* (2011), Epo (2011), and Geda *et al.*'s (2001) opinion which stated that the increasing age of a household head will reduce his household poverty.

However, it was in line withMajeed & Malik (2015) who stated that a household's probability of being poor increases with the addition of household head age until the age of 42 years because households choose to accumulate assets for old age. Household head age is seen in a non-linear relationship. Generally, someone accumulates capital more optimally at working ages since there is a greater chance to become non-poor. However, it is said that until old age/retirement, a person can accumulate sufficient assets to become non-poor in old age compared to working at a young age.

The tendency of the effect of household head age to form an inverted U curve in Kediri City indicated an increase in the household burden as the household head grows older so that the poverty status increases. However, until the age of 49 years, the household burden decreases and welfare increases.



Head Age Source: Social Welfare Integrated Data (2019), processed.

Figure 5 shows the trend of increasing household burden with increasing household head's age in the 19-99 years range. Household burdens, seen from the number of dependants and the number of school-age children, reached the highest value of 1.94 when household head age reached 49 years old, and then decreased. Meanwhile, the highest average number of school-age children was 1.31 when the household head age reached 46 years, and then decreased. This is relevant to the finding revealing that until the age of the household head reaches 49 years, the risk of household poverty in Kediri City increases due to the increase in household burdens, namely the older the household head, the more the number of children and the more the number of

dependants, namely school-age children. However, after the age of 49, household poverty decreased due to reduced household burdens, the children might have grown up and formed their own households, or the dependence of school-age children became lower.

Government policies are aimed at reducing education consumption expenditure, especially for poor households by continuing the free basic education program, increasing subsidies for secondary education, and increasing higher education scholarships for the less fortunate. Besides, the productivity of all household members in all age categories must be optimized. The sustainability of individual productivity is pursued through improving the quality of life of the community by consistently moving the habit of a clean and healthy lifestyle and fostering the elderly to remain productive and prosperous in old age. Good quality of individual life will increase life expectancy as a lever of the success of human development which leads to an increase in the welfare of the population.

#### 2) Household Head's Gender.

Gender and poverty are part of the issues in development. The lowering trend of women's economic status affects the consistently low standard of living for them and their children (Todaro & Smith, 2006). The level of education and welfare of women greatly affects the welfare and level of education of children. This means that the success of efforts to improve the quality of human resources for future generations must be accompanied by efforts to improve the education and welfare of women in the development process.

Household head gender significantly affects poverty status. A female household head will reduce her household's probability of being poorer. This means that households headed by women tend to be more prosperous than those headed by men.

This finding contradicted the studies of Teka et al. (2019), Biyase & Zwane (2018), Vijaya *et al.* (2014), and Geda *et al.* (2001), stating that male household heads tend not to be poor. It was also different from Sekhampu's (2013) dan Mok *et al.*' (2007) opinion which revealed that the sex of the head of the household did not significantly affect poverty status.

The proportion of poor households headed by a woman in Kediri City was only 21.72%. However, the chance of a household being more prosperous if headed by a woman indicates that female household heads have higher productivity in increasing income. Women tend to be resilient at work and even able to carry out multiple roles as heads of households. Besides, women generally have a lower wage rate than men but can enter more diverse sectors of works with wider opportunities than men. Judging from the type of business that they are engaged in, the proportion of female household heads working in Kediri City is mostly in the formal sectors: in the financial, service, and other business fields (35%). Being an employee of a formal sector tends to receive a regular income, thereby reducing the likelihood of a household becoming poor. It is inversely proportional to the work sectors of male household heads, where the majority of informal workers are in the construction business sector (34.59%).



Figure 6. The Proportions of Business Fields of Female and Male Household Heads Source: Social Welfare Integrated Data (2019), processed.

Given that Kediri City is an urban area where gender equality is echoed and women are more productive in all fields of work, gender issues that contribute to poverty need to be addressed with government commitment through pro-poor and pro-gender development, namely by providing equal opportunities between women and men in accessing education and economic activities to increase their productivity.

#### 3) Household Head's Marital Status.

Biyase & Zwane (2018) stated that household head marital status affects the poverty status. Households headed by those who live together, widows, and those not married have a lower level of welfare.

A married household head significantly, at 1 percent, affects poverty status in a positive direction or is likely to be poorer.

This finding was in line with the findings of Biyase & Zwane (2018), Epo (2011), and Geda *et al.* (2001), stating that the marital status of household heads has a significant effect on household poverty status. Meanwhile, the findings of Cho & Kim (2017), Sekhampu (2013), and Mok *et al.* (2007) showed that the marital status of household heads does not have a significant effect on household poverty status.

The decline in household welfare, seen from the marital status of household heads, has

implications for policies related to the prevention of early marriage which can increase the risk of poverty.

## 4) Household Dependency Ratio.

According to Mckay & Lawson (2002), poverty can be caused by a level of dependency. Household structure relates to poverty. The increase in the number of household members increases the total consumption of the household. However, a large household structure can also increase the chances of being more prosperous in terms of production (Lanjouw *et al.*, 2011).

The dependency ratio significantly affects household poverty status in a positive direction. The greater the household dependency ratio, the greater the chances of being poorer. These results were consistent with the research by Teka et al. (2019), DP, Moh K (2017), Majeed & Malik (2015), Sekhampu (2013), Shibru et al. (2013), Akerele et al. (2012), Ennin et al. (2011), Sharif Chaudhry et al. (2009), Hashmi et al. (2008), de Silva (2008), Andersson et al. (2006), Geda et al. (2001), dan Khalid et al. (2005). The increasing dependency ratio indicates that the number of non-productive age household members increases so that the burden borne by productive age household members is higher and the household has the opportunity to fall into poverty.

The dependency of households should be minimized by optimizing the productivity of all household members. The government needs to expand access and job opportunities, create decent work opportunities for the working-age population, improve skills training, and develop entrepreneurship, the sustainability of which is guaranteed, as well as target housewives and the elderly to stay productive. Also, the family planning program needs to be encouraged to reduce the population growth rate.

## 5) Residential (Asset) Ownership

Lack of assets is the main cause of the population being vulnerable to poverty (Shepherd, 2007). ousing, based on ownership, can be considered a productive asset if it is supported by good conditions, such as the availability of access to clean drinking water and proper sanitation.

Residential ownership itself has a significant effect in a negative direction on the probability of household poverty status. This means that asset ownership reduces the probability of being poorer.

This study was in line with Sa'diyah's (2012) which stated that ownership of residential assets decreases a household's probability of being poor.

According to Kuncoro (2004) a low level of

asset ownership is one of the factors causing poverty due to the effect on market access that can be done by a household. Asset ownership describes household wealth which affects the level of household consumption (Nanga, 2005).

Thus, having adequate productive assets will help households move out of poverty by increasing income and opening up sufficient investment opportunities through savings. In this case, the government needs to encourage investment in education to improve the quality of long-term social capital, expand access and job opportunities, and create a conducive business climate to increase the productivity of poor households to immediately move to improve their economic conditions.

### 4.3 The Effects of Community Characteristics on Household Poverty Status

## 1) Access to the Internet.

The increasing digitalization of the economy makes people's need for access to technology and information very important. Technology has various uses in the production, trade, and provision of government services that can increase income and improve the quality of life of the poor (Kenny, 2002).

Internet accessibility has a significant effect on the poverty status of households in Kediri City at the level of 1% in a negative direction. Internet access decreases a household's probability of being poorer, or, in other words, increases its chance of being more prosperous.

This finding was in line with Widiyastuti (2015) who revealed that internet penetration has a significant role in reducing poverty levels. The internet does not only function as a means of communication but also as a medium of information as well as data processing to strengthen the people's economy. Kenny (2002) showed that in developing countries, the use of the internet is empowered to increase income, which in turn functions as an intermediary for the sustainability of poverty alleviation.

Seeing the importance of disseminating information with the help of information technology, as well as an effort to equalize internet access for all people, the government needs to increase partnerships with telecommunication service providers to provide internet access as a public good, so that people, without exception, can benefit from providing free internet access, especially in public spaces.

### 2) Access to Proper Sanitation.

Poor quality of sanitation services is a cause of poverty because it causes financial losses and various environment-related diseases. Therefore, increasing access to clean water and proper sanitation is outlined as a goal of

sustainable development (Adhi, 2009).

Household accessibility to proper sanitation through ownership of defecation facilities itself is significant and negatively affects the poverty status of households in Kediri City. This means that access to proper sanitation will reduce the probability of households becoming poorer or increase their welfare.

This is in line with research by O Mungkasa (2004) and Rizki & Saleh (2007) which found that improving proper sanitation increases the welfare of the population or reduces the level of poverty.

To realize a healthy housing environment as a standard of living, the government should ensure the fulfillment of access to proper and adequate sanitation by improving communitybased sanitation facilities and latrines to achieve Open Defecation Free (ODF).

#### 3) Availability of Health Facilities.

Health is one of the main assets in the implementation of economic development. A good health condition of the population will increase productivity which leads to improved welfare. Prosperity will be achieved if health development and economic development are balanced.

Areas with adequate health infrastructure have a population that is less likely to experience poverty. The availability of health facilities has a significant effect at the level of 1% affecting the poverty status of households in Kediri in a positive direction. This means that improving health facilities will increase the household probability of becoming poorer.

The availability of health facilities in various choices is expected to increase household accessibility to good health services so that the public health status increases, which in turn increases welfare status.

Improvement of health facilities in Kota Kediri does not show a logical causal relationship with poverty status according to theory. This needs to be examined considering the possibilities that occur, including people who do not have access to health facilities, or services that do not meet their needs. The number of alternative health service options in Kediri City, which was an average of 15 units in each Kelurahan, made people tended to be more selective in obtaining the best health service according to their needs. So that, the choice of access to health facilities itself poses a risk for households to become poorer by choosing to increase health expenditures rather than choosing free health services not matching their desire, both in terms of quality and ease of access to services. This is evidenced by the increase in the proportion of household expenditure on health commodities in

the last two years as shown in Figure 7.



#### Figure 7. Annual Household Non-Food Expenditure in Kediri City 2018-2019 (%) Source: Susenas (2019), processed.

The government as a provider of public goods, in this case, health facilities, must ensure easy access and improve service quality so that the availability of adequate health facilities with various alternatives in urban areas can be balanced with optimal utilization.

### 4) Availability of Financial Institutions.

Financial institutions are a medium to increase productivity and support poor households to diversify their work (Teka *et al.*, 2019).

The availability of financial institutions at the Kelurahan level that can be accessed by households had a significant effect with a negative direction at the 1% level on the probability of household poverty status in Kediri. An increase in the number of financial institutions reduces households' probability of being poorer. These financial institutions include government commercial banks, private commercial banks, and people's credit banks.

Research by Teka *et al.* (2019), Apata *et al.* (2010), and HA Sackey (2005) showed that household access to credit has a significant effect on poverty status. Rini *et al.* (2016) also found that households that access business credit are less likely to be poor than those who do not. Ease of access to credit helps poor households develop to improve their welfare and be able to get out of poverty.

The availability of financial institution facilities must be balanced with easy access to credit through, among others, assistance/facilitation of poor households who want to access credit and government partnerships with financial institutions so that the existence of financial institutions can be a positive contributor in triggering households' productivity to develop businesses and improve their welfare.

#### 5. Conclusions

Analysis of the causes and characteristics of poverty at the micro household level can provide a more comprehensive figure of the poverty profile. The characteristics of individuals, households, and communities affect the poverty status of households in Kediri City. There are differences in effects of

determinants of two poverty groups, namely, first, the poor and very poor group and, secondly, the near-poor and vulnerable-to-poor group. The determinants of poverty from individual determined characteristics are by the productivity of household members in managing productive assets as part of household characteristics, with the support of adequate infrastructure access as part of community characteristics in achieving a decent standard of living.

## 6. Implications

Poverty policy interventions must be adjusted to the characteristics and status of poverty. Hence, the "one policy fits all" does not apply. The practical implications are as follows:

- 1) In general, strengthening human capital as a key enabler for development is prioritized for the quality of educated, skilled, and productive human resources through educational investment, access expansion, and service quality improvement; a ready-touse workforce preparation that is adaptive to developments in information technology; and the improvement of the management of infrastructure with higher guality and can be easily utilized by all people, especially the poor, particularly in the education and health sectors.
- 2) In particular, the policy focus is adjusted to the poverty status of each household:
  - For very poor households and poor households, policies are more directed in the form of social assistance, preparation of social services for young people (<15 years), and provision of social services for unproductive elderly groups (> 64 years);
  - For near-poor and vulnerable-to-poor households, policies are focused on empowerment in the form of skills training, stimulating assistance for business infrastructure, and facilitation to support productive businesses so that households are more empowered and do not fall into poverty.

The empirical implications can be in the form of, *first*, including more specific variables such as mapping the formal and informal employment sectors whose results are much more reflective of the real conditions of the productivity of household members as part of individual characteristics and, secondly, dividing the region into clusters (industrial/non-industrial) which affect poverty status based on local potential as a proxy for the community characteristics.

### References

Adhi, E. T. (2009). Pelayanan Sanitasi Buruk Akar Dari Kemiskinan. *Jurnal Analisis*  Sosial, 14, 76-88.

Akerele, D., Momoh, S., Adewuyi, S. A., Phillip, B. B., & Ashaolu, O. F. (2012). Socioeconomic determinants of poverty among urban households in South-West Nigeria. *International Journal of Social Economics*, *39*(3), 168–181. https://doi.org/10.1108/0306829121119934 1

- Andersson, M., Engvall, A., & Kokko, A. (2006). Determinants of poverty in Lao PDR. May 2014, 1–5.
- Apata, T. G., Apata, O. M., Igbalajobi, O. a, & Awoniyi, S. M. O. (2010). Determinants of rural poverty in Nigeria : Evidence from small holder farmers in South-western, Nigeria. *Journal of Science and Technology Education Research*, 1(4)(September), 85– 91.
- Ardi Adji, Taufik Hidayat, Hendratno Tuhiman, Sandra Kurniawati, A. M. (2020). Pengukuran Garis Kemiskinan di Indonesia: Tinjauan Teoretis dan Usulan Perbaikan.

Badan Pusat Statistik. (2019). Penghitungan Dan Analisis Kemiskinan Makro Indonesia Tahun 2019, 1, xvi+72. https://doi.org/10.1007/s13398-014-0173-7.2

- Bhaumik, S. K., Gang, I. N., & Yun, M.-S. (2011). A Note on Poverty in Kosovo. SSRN Electronic Journal, 807. https://doi.org/10.2139/ssrn.905882
- Biyase, M., & Zwane, T. (2018). An Empirical Analysis of the Determinants of Poverty and Household Welfare in South Africa. *The Journal of Developing Areas*, *52*(1), 115– 130. https://doi.org/10.1353/jda.2018.0008
- Butar-Butar, D. (2008). Analisis Sosial Ekonomi Rumah Tangga Kaitannya Dengan Kemiskinan Di Perdesaan (Studi Kasus Di Kabupaten Tapanuli Tengah).
- Cho, S., & Kim, T. (2017). Determinants of Poverty Status in Rwanda. *African Development Review*, 29(2), 337–349. https://doi.org/10.1111/1467-8268.12260

Dartanto, T., & Nurkholis. (2013). The determinants of poverty dynamics in Indonesia: evidence from panel data. *Bulletin of Indonesian Economic Studies*, *49*(1), 61–84. https://doi.org/10.1080/00074918.2013.772

939 de Silva, I. (2008). Micro-level determinants of poverty reduction in Sri Lanka: A multivariate approach. *International Journal of Social Economics*, *35*(3), 140–158. https://doi.org/10.1108/0306829081084783 3

Dimova, R., & Gang, I. N. (2007). Self-selection and wages during volatile transition. *Journal* of Comparative Economics, 35(3), 612–629.

https://doi.org/10.1016/j.jce.2007.05.003

Dollar, D., & Kraay, A. (2012). Growth is Good for the Poor living. In *Journal of Economic Growth* (Vol. 7, Issue 3). http://econpapers.repec.org/RePEc:wbk:wbr wps:2587

- Dp, M. K. (2017). Analisis Faktor-Faktor Penyebab Kemiskinan Di Kabupaten Musi Banyuasin. Jurnal Ilmiah Ekonomi Global Masa Kini, 8(01), 16–20.
- Ennin, C. C., Nyarko, P. K., Agyeman, A., Mettle, F. O., & Nortey, E. N. N. (2011). Trend Analysis of Determinants of Poverty in Ghana: Logit Approach. *Research Journal* of *Mathematics and Statistics*, *3*(*1*), 20–27.
- Epo, B. N. (2011). Determinants of Poverty in Cameroon: A Binomial and Polychotomous Logit Analysis. SSRN Electronic Journal, April. https://doi.org/10.2139/ssrn.1424672
- Espinoza-Delgado, J., & Klasen, S. (2017). Gender and Multidimensional Poverty in Nicaragua, an Individual-Based Approach. SSRN Electronic Journal, 85263. https://doi.org/10.2139/ssrn.3016287
- Geda, A., De Jong, N., Mwabu, G., & Kimenyi, M. S. (2001). Determinants of Poverty in Kenya: a Household Level Analysis. *ORPAS - Institute of Social Studies, August,* 1–25.
- https://repub.eur.nl/pub/19095/wp347.pdf Gounder, N. (2005). Rural urban migration in Fiji: Causes and Consequences. *Department of Economics, University of the South Pacific.*
- HA Sackey. (2005). Poverty in Ghana from an assets-based perspective: An application of probit technique. *African Development Review*, *17*(1), 41–69.
- Hashmi, A. A., Sial, M. H. (2008). Trends and determinants of rural poverty: A logistic regression analysis of selected districts of Punjab. *Pakistan Development Review*, *47*(4), 909–922.

https://doi.org/10.30541/v47i4iipp.909-923

Hyder, A., & Sadiq, M. (2010). Determinants of Poverty in Pakistan. *Hamburg Review of Social Sciences*, *4*(3).

- Kenny, C. (2002). Information and communication technologies for direct poverty alleviation: Costs and benefits. *Development Policy Review*, 20(2), 141– 157. https://doi.org/10.1111/1467-7679.00162
- Khalid, U., Shahnaz, L., & Bibi, H. (2005). Determinants of poverty in Pakistan: A multinomial logit approach. *The Lahore Journal of Economics*, *10(1)*(January 2005), 65–81.

Haughton, Jonathan, & Khandker, Shahidur R. (2012). *Pedoman tentang kemiskinan dan ketimpangan*. Salemba Empat.

Kuncoro, M. (2004). *Otonomi & Pembangunan* Faculty of Economics and Business,

Brawijaya University

Daerah. Erlangga.

- Lanjouw, P., Ravallion, M., & Url, S. (2011). *Poverty and Household Size. Society*, *105*(433), 1415–1434.
- Majeed, M. T., & Malik, M. N. (2015). Determinants of household poverty: Empirical evidence from Pakistan. *Pakistan Development Review*, *54*(4), 701–717. https://doi.org/10.30541/v54i4i-iipp.701-718
- Mckay, A., & Lawson, D. (2002). Chronic Poverty : A Review of Current Quantitative Evidence CPRC Working Paper No 15 Chronic Poverty Research Centre ISBN Number : 1-904049-14-1. *Development*, *April*, 1–28.
- Mok, T. Y., Gan, C., & Sanyal, A. (2007). The determinants of urban household poverty in Malaysia. *MODSIM07 - Land, Water and Environmental Management: Integrated Systems for Sustainability, Proceedings*, *3*(4), 1124–1130.
- https://doi.org/10.3844/jssp.2007.190.196 Mukherjee, S., & Benson, T. (2003). The Determinants of Poverty in Malawi, 1998. *World Development*, *31*(2), 339–358. https://doi.org/10.1016/S0305-750X(02)00191-2
- Nanga, M. (2005). *Makro Ekonomi, Teori, masalah dan kebijakan*. PT Raja Grafindo Persada.
- Nations, U. (2015). International migration report.
- Nguyen, C., Linh, V., & Nguyen, T. (2013). Urban poverty in Vietnam: determinants and policy implications. *International Journal of Development Issues*, *12*(2), 110–139. https://doi.org/10.1108/IJDI-08-2012-0049
- O Mungkasa. (2004). Sekilas Kondisi Air Minum dan Sanitasi di Indonesia. Media Percik.
- Ravallion, M., & Chen, S. (2003). Measuring Pro-Poor Growth. *Economics Letters*, 78(1), 93-(August 2001).
- Rini, A. S., Sugiharti, L., & Airlangga, U. (2016). Jurnal Ilmu Ekonomi Terapan, 01(2), 17–33. https://media.neliti.com/media/publications/ 98850-ID-sinergi-industri-dan-umkmberbasis-kelem.pdf
- Rizki, B., & Saleh, S. (2007). Keterkaitan Akses Sanitasi dan Tingkat Kemiskinan: Studi Kasus di Propinsi Jawa Tengah. *Economic Journal of Emerging Markets*, 12(3).
- Sa'diyah, Y. H. (2012). Analisis Kemiskinan Rumah Tangga Melalui Faktor-Faktor Yang Tugu Kota Semarang.
- Sakuhuni, R. C., Chidoko, C., Dhoro, N. L., & Gwaindepi, C. (2011). Economic Determinants of Poverty in Zimbabwe. International Journal of Economics and Research, 02(06), 01–12.
- Sekhampu, T. J. (2013). Determinants of Poverty in a South African Township. *Journal of Social Sciences*, *34*(2), 145–153.

https://doi.org/10.1080/09718923.2013.118 93126 Sharif Chaudhry, I., Malik, S., & Abo ul Hassan, A. ul H. (2009). The Impact of Socioeconomic and Demographic Variables on Poverty: A Village Study. The Lahore Journal of Economics, 14(1), 39-68. https://doi.org/10.35536/lje.2019.v14.i1.a2 Shepherd, A. (2007). Chronic poverty: Some policy implications. Development, 50(2), 48-55. https://doi.org/10.1057/palgrave.developme nt.1100381 Shibru Tessema Muktar, Jema Haji Mohamad, Y. M. W. (2013). Dimensions and Determinants of Agro-Pastoral Households ' Poverty in Dembel District of Somali Regional State, Ethiopia. 4(15), 13-20. Stephen, S. C., & Michael, T. P. (2010). Pembangunan Ekonomi. Jilid I Edisi Kesembilan. Erlangga. Taufiq, N. (2017). Pengaruh Dinamika Sektor Pekerjaan Terhadap Dinamika Kemiskinan Di Indonesia. Sosio Konsepsia: Jurnal Penelitian Dan Pengembangan Kesejahteraan Sosial Vol. 7, 1-14. Teka, A. M., Temesgen Woldu, G., & Fre, Z. (2019). Status and determinants of poverty and income inequality in pastoral and agropastoral communities: Household-based evidence from Afar Regional State, Ethiopia. World Development Perspectives, 15(May), 100123. https://doi.org/10.1016/j.wdp.2019.100123 Todaro, M. P., & Smith, S. C. (2006). Pembangunan ekonomi. Jakarta. Erlangga. Vijaya, R. M., Lahoti, R., & Swaminathan, H. (2014). Moving from the household to the individual: Multidimensional poverty analysis. World Development, 59, 70-81. https://doi.org/10.1016/j.worlddev.2014.01.0 29 Warr, P. G. (2000). Poverty incidence and economic growth in Southeast Asia. Journal of Asian Economics, 11(4), 431-441. https://doi.org/10.1016/S1049-0078(00)00069-5 Widiyastuti, I. (2015). Analisis Runtun Waktu dalam Pengujian Pengaruh TIK terhadap Penurunan Laju Kemiskinan di Indonesia Time Series Analysis In The Assessment of ICT Impact At The Poverty Alleviation In Indonesia. Jurnal Ilmu Pengetahuan Dan Teknologi Komunikasi, 17(1), 19–30.