

ANALYSIS OF THE IMPACT OF TOLL ROAD CONSTRUCTION PROJECTS ON WELFARE LEVELS THROUGH LOCAL WORKFORCE INCOME AS AN INTERVENING VARIABLE

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ABSTRACT

This study aims to determine the influence of labor, working hours, number of family dependents, and age on the welfare of local workers through income in Maron District, Probolinggo Regency. In this study, the data used was in the form of primary data collected through observation in the field and from the results of the distribution of questionnaires to 35 respondents, interviews and documentation. The sampling technique used in this study is a non-probability sampling technique with a saturated sampling method. In addition, this study uses a quantitative method, with a data management method using the Path Analysis technique with the help of the SPSS 25 analysis tool. The results of the study showed that the variables of labor, working hours, and the number of family dependents had a significant effect on income variables. Meanwhile, the age variable did not have a significant effect on the income variable. And directly the labor and income variables have a significant effect on the welfare variable. Meanwhile, working hours, the number of family dependents and age do not have a significant effect on welfare. Meanwhile, the indirect test with the test of labor variables, working hours, and the number of family dependents affects welfare through income. Meanwhile, the age variable does not have a significant effect on welfare through income.

Keywords: Local, Working Hours, Number of Family Dependents, Age

1. INTRODUCTION

Development is a planned effort to improve the standard of living of a nation and its people. One of the infrastructure developments undertaken by the government to support economic growth in this modern era is the construction of toll roads. According to the Ministry of Public Works and Housing (PUPR) in East Java Province, the Probowangi Toll Road will be constructed. The Probowangi Toll Road is a project that is still under construction with the aim of connecting two regencies, namely Probolinggo Regency and Banyuwangi Regency. The Probowangi Toll Road stretches 175.40 km and is divided into 7 sections. Section 1 Gending-Kraksaan is 12.88 km, and Section 2 Kraksaan-Paiton is 11.20 km. Section 3 Paiton-Besuki is 25.60 km, Section 4 Besuki-Situbondo is 42.30 km, Section 5 Situbondo-Asembagus is 16.76 km, Section 6 Asembagus is 37.45 km, and Section 7 Bajulmati-Ketapang is 29.21 km.

Maron Subdistrict is a subdistrict in Probolinggo Regency that is also crossed by the Probowangi toll road construction project. There are several villages in Maron Subdistrict that are affected by the toll road construction, including Brumbungan Kidul Village, Suko Village, and Ganting Village. The Probowangi toll road construction project has had both positive and negative impacts on the local community. The negative impacts of the Probowangi toll road project include air pollution and the loss of livelihoods for residents due to land acquisition for the toll road project, which mostly passes through agricultural and residential areas. In addition, there are positive impacts from the Probowangi toll road project, namely the opportunity for the local community to work in the construction of the Probowangi toll road. This provides an opportunity for the local community to earn income and improve the local labor economy.

Based on Law No. 13 of 2003, labor is defined as any person capable of performing work to produce goods and services to meet their own needs or those of the community. The empowerment of local communities working on the toll road project is in line with the types of work required. In addition, the workers were trained by field coordinators before they started work. If local workers are persistent and skilled, this can be an opportunity to increase their income.

Another factor for workers to earn income is by increasing their working hours. Working hours are a stipulation of time for workers to perform their jobs according to their needs. According to Bustoro Aly (2018:34), the working hours provision in Article 77 paragraph 1 of Law No. 13/2003 requires every employer to implement the working hours provision. If workers work beyond the company's working hours, local workers are entitled to overtime pay.

In addition, the number of dependents is another reason for local workers to earn income. According to Wiroshardjo (1996) in (Hanum & Safuridar 2018), the number of dependents or family members who eat together will indirectly force workers to seek additional income. Therefore, if local workers have a large number of family members or dependents, the amount of income they need will also be greater.

Meanwhile, according to Lasut (2017), the age of workers is the age of individuals calculated from the time of birth until their birthday. According to Nora Aprilia, age is one of the factors that can affect a person's income. Income tends to increase with age, peaking at productive age due to increased work productivity.

Based on these issues and various previous research references, the researcher was interested in conducting further research aimed at determining the effect of labor, working hours, number of family dependents, and age on the level of welfare through the income of local workers in Maron District, Probolinggo Regency.

2. RESEARCH METHODS

Research Location

The research was conducted in three villages affected by the toll road construction project, namely Brumbungan Kidul, Suko, and Ganting villages in Maron District, Probolinggo Regency, from December 2023 to March 2024.

Type and Source

This study employs a descriptive quantitative research design. Descriptive quantitative methods aim to provide an objective depiction of a particular condition through numerical data, encompassing data collection, interpretation, and presentation of results (Arikunto, 2006). Quantitative research is commonly applied to examine specific populations or samples in order to analyze measurable variables systematically (Sugiyono, 2014). The data used in this study consist of both primary and secondary sources. Primary data were obtained directly without intermediaries to address the research objectives, including information collected from local workers involved in the toll road project. Secondary data were collected indirectly from supporting sources such as academic journals and official government publications.

Population and Sample

According to Sugiyono (2019), a population refers to a defined area of generalization consisting of objects or subjects with specific characteristics determined by the researcher for investigation and inference. In research contexts, the population represents the entire set of individuals or units whose characteristics are analyzed in a study. In this research, the population comprises all local workers employed in the construction of the Probolinggo–Banyuwangi toll road project. Based on preliminary field observations, the total number of local workers involved in the project is 35 individuals. These workers originate from three villages in Maron District, Probolinggo Regency, which are directly affected by the toll road construction. Specifically, 18 workers are from Brumbungan Kidul Village, 11 workers from Suko Village, and 6 workers from Ganting Village.

According to Sugiyono (2017), a sample is a subset of the population that possesses characteristics representative of the entire population. Sampling is generally applied when the population size is large; however, the selected sample must adequately represent the population to ensure the validity of the findings. In this study, the sample includes the entire population due to the relatively small number of respondents. Given that the total number of local workers involved in the toll road project is fewer than 100, a census approach was adopted. Consequently, all 35 local workers employed in the Probolinggo–Banyuwangi toll road construction project were included as research respondents.

Research Variable Identification

Independent variables refer to factors that are expected to influence or explain variations in the dependent variable. These variables are observed and measured to examine their relationship within the research model. In this study, the independent variables include labor-related characteristics, namely the number of workers (X_1), working hours (X_2), number of family dependents (X_3), and age (X_4).

The dependent variable represents the outcome influenced by changes in the independent variables and reflects the main focus of the analysis. In this research, workers' welfare (Y) is defined as the dependent variable.

An intervening (mediating) variable explains the mechanism through which independent variables affect the dependent variable indirectly. It serves as a linking variable that clarifies the causal pathway within the analytical framework. In this study, local workers' income (Z) is employed as the intervening variable.

Operational Definition of Variables

Labor (X_1) is defined as the individual workforce involved in the toll road construction project and is operationalized through indicators of work ability and work motivation. These indicators reflect the workers' capacity to perform assigned tasks and their internal drive to engage productively in construction activities.

Working hours (X_2) refer to the amount of time allocated to work activities and are measured by the number of working hours per day as well as overtime hours. This variable captures both regular and additional labor input that may influence income generation and overall welfare.

Family dependents (X_3) represent the number of household members who rely economically on the worker. This variable is measured by the total number of family members living in the same household and the number of dependents who are not yet economically independent. It reflects the economic burden borne by the worker.

Age (X_4) is measured in productive age ranges, specifically between 15 and 55 years. This variable is included to capture differences in physical capacity, work experience, and productivity across age groups. Income (Z), as the intervening variable, refers to the wages received by local workers and is measured through indicators of wage level and work enthusiasm. Income is assumed to mediate the relationship between labor characteristics and workers' welfare. Workers' welfare (Y) is defined as the overall condition of well-being experienced by workers and is operationalized through the fulfillment of basic needs, access to healthcare services, and access to education. These indicators reflect both economic and social dimensions of welfare.

Data Analysis Methods

The data analysis used in this study includes: Validity Test, Reliability Test, Normality Test, Multicollinearity Test, Heteroscedasticity Test, Path Analysis Test, Hypothesis Test, Sobel Test.

3. RESULTS AND DISCUSSION

Instrument Test Results

1. Validity test

The validity test results show that all statements related to the variables of labor (X_1), working hours (X_2), number of dependents (X_3), age (X_4), income (Z), and welfare (Y) have a calculated r value > table r value, so it can be concluded that all statements used in the questionnaire are valid.

2. Reliability Test

The reliability test results for the variables of labor, working hours, number of dependents, age, income, and welfare show a Cronbach's Alpha value > 0.60. Specifically, the reliability of the variables of labor force (0.664), working hours (0.710), number of dependents (0.682), age (0.667), income (0.694), and welfare (0.684) indicates that all variables are reliable.

Results of Classical Assumption Tests

1. Normality Test

The normality test results show that with a significance value of $0.200 > 0.05$, it implies that in this study the distribution tends to be normal.

2. Multicollinearity Test

Based on the test in Table 4.5, it shows that labor $0.546 > 0.1$ and VIF $1.830 < 10$ means that there is no multicollinearity, working hours $0.623 > 0.1$, and VIF $1.606 < 10$ means that there is no multicollinearity, number of family dependents $0.536 > 0.1$ and VIF $1.867 < 10$, meaning that there is no multicollinearity, age $0.699 > 0.1$ and VIF $1.430 < 10$, meaning that there is no multicollinearity, income $0.666 > 0.1$ and VIF $1.502 < 10$, meaning that there is no multicollinearity.

3. Heteroscedasticity Test

Based on the results of the heteroscedasticity test, it shows that the variables of labor, working hours, number of dependents, age, and income have a significance value greater than 0.05, indicating that there is no heteroscedasticity.

Path Analysis

In this stage, the estimation stage is carried out in the panel data regression model using Fixed Effect and Pooled Least

Path Coefficients Model 1

Based on Table 4.6, it can be seen that the significant value for the labor variable (X_1) is 0.049, which means that labor affects income because the significance value is below 0.05. The significant value for the working hours variable (X_2) is 0.002, which means that working hours affect income because the significance value is below 0.05. the family dependency variable (X_3) is 0.000, which means that family dependency affects income because the significance value is below 0.05. And the age variable (X_4) is 0.467, which means that age does not significantly affect income because the value is above 0.05.

Table 1
Model 1 Path Coefficients

Coefficients ^a					
Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		

1	(Constant)	4,092	,691		5,922	,000
	WORKFORCE	,101	,049	,168	2,054	,049
	WORKING HOURS	,164	,049	,253	3,318	,002
	NUMBER OF DEPENDENTS FAMILY	,390	,047	,645	8,307	,000
	AGE	,040	,055	,053	,727	,467
a. Dependent Variable: INCOME						

Source: Data processed

Table 2
Results of R Square Path Coefficient Model 1

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,943 ^a	,889	,875	,30230
a. Predictors: (Constant), age, working hours, workforce, number of dependents.				

Source: Data processed

Based on Table 2, it can be seen that the R Square Coefficient value in the model summary is 0.889. This shows that the simultaneous effect of variable X (labor, working hours, number of dependents, and age) on income (Z) is 88.9%, while the remaining 11.1% is contributed by other variables not included in the study. Meanwhile, the el value can be calculated as follows:

$$\begin{aligned}
 el &= \sqrt{1-0.889} \\
 &= \sqrt{0.111} \\
 &= 0.333
 \end{aligned}$$

Path Coefficients Model 2

Table 1
Model 1 Path Coefficients

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	1,404	1,111		1,264	,216
	WORKFORCE	,137	,057	,242	2,393	,023
	WORKING HOURS	,014	,063	,023	,220	,827
	NUMBER OF DEPENDENTS FAMILY	-,187	,093	-,327	-2,004	,054
	AGE	,016	,060	,023	,267	,792
	INCOME	,932	,199	,988	4,674	,000
a. Dependent Variable: WELFARE						

Source: Data processed

Based on Table 3, it can be seen that the significant value of the labor variable (X1) is 0.023, which means that labor has a significant effect on welfare because the significance value is below 0.05. the working hours variable (X2) is 0.827, which means that working hours do not have a significant effect on income because the significance value is above 0.05, the number of family dependents variable (X3) is 0.054, which means that the number of family dependents does not have a significant effect on income because the significance value is above 0.05, The age variable (X4) is 0.796, which means that age does not have a significant effect on welfare because the significance value is above 0.05, and income (Z) is 0.000, which means that income has a significant effect on welfare because the significance value is below 0.05.

Table 2
Results of R Square Path Coefficient Model 2

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,925 ^a	,856	,832	,33009
a. Predictors: (Constant), Income, Employment, Working Hours, Age, Number of Dependents				

Source: Data processed

Based on Table 4, it can be seen that the R Square Coefficient value in the model summary is 0.856, which indicates that the contribution of labor (X1), working hours (X2), number of dependents (X3), age (X4), and income (Z) to welfare (Y) is 0.856 or 85.6%, while the remaining 14.4% is the contribution of other variables not included in the study. Meanwhile, the value of $e1$ can be found using the formula:

$$\begin{aligned} e1 &= \sqrt{1-(0.856)} \\ &= \sqrt{0.144} \\ &= 0.379 \end{aligned}$$

Calculation of Direct Effect/DE

1. The effect of the Labor variable (X1) on Income (Z)
 $DeZX1 = X1 \rightarrow Z = 0.168$
This indicates that the labor variable (X1) has a very weak effect on income because the effect value is between 0 and 0.25.
2. The effect of the working hours variable (X2) on income (Z)
 $DeZX2 = X2 \rightarrow Z = 0.253$
This indicates that the working hours variable (X2) has a fairly strong effect on income (Z) because the effect value is between 0.25 and 0.5.
3. The effect of the number of dependents variable (X3) on income (Z)
 $DeZX3 = X3 \rightarrow Z = 0.645$
This indicates that the number of dependents (X3) has a strong effect on income (Z) because the effect value is between 0.5 and 0.75.
4. The effect of the age variable (X4) on income (Z)
 $DeZX4 = X4 \rightarrow Y = 0.053$
This indicates that age (X4) has a strong influence on income (Y) because the influence value is between 0.5 and 0.75.
5. The influence of the labor variable (X1) on welfare (Y)
 $DeYX1 = X1 \rightarrow Y = 0.242$
This indicates that labor (X1) has a very weak effect on welfare (Y) because the effect value is between 0-0.25.
6. The effect of the Working Hours variable (X2) on Welfare (Y)
 $DeYX2 = X2 \rightarrow Y = 0.023$
This indicates that working hours (X2) on welfare (Y) are considered to have a very weak positive effect because the effect value is between 0-0.25.

Calculation of indirect effects (Indirect Effect/IE)

1. The effect of Labor (X1) on Welfare (Y) through Income.
The direct effect of X1 on Y is 0.242. Meanwhile, the indirect effect of X1 on Y through Z is the multiplication of the beta of Z on Y. The indirect effect of X1 on Y through Z is the multiplication of the beta value of X1 on Z and the beta value of Z on Y, which is $0.168 \times 0.988 = 0.165$. Based on these calculations, it can be seen that the effect of labor (X1) on welfare through the income of local labor on the toll road project (Z) is very weak because the effect value is between 0-0.25.
2. The Effect of Working Hours (X2) on Welfare (Y) through Income (Z)
It is known that the direct effect of X2 on Y is 0.023. Meanwhile, the indirect effect of X2 on Y through Z is the multiplication of the beta of Z on Y. The indirect effect of X2 on Y through Z is the multiplication of the beta value of X2 on Z and the beta value of Z on Y, which is $0.253 \times 0.988 = 0.249$. Based on the results of the calculation, it shows that the effect of working hours (X2) on welfare through the income of local workers on the toll road project (Z) has a very weak effect because the effect value is 0-0.25.
3. The effect of the number of dependents (X3) on welfare (Y) through income (Z)
It is known that the direct effect of X3 on Y is -0.327. Meanwhile, the indirect effect of X3 on Y through Z is the multiplication of the beta of Z on Y. The indirect effect of X3 on Y through Z is the multiplication of the beta value of X3 on Z and the beta value of Z on Y, which is $0.645 \times 0.988 = 0.637$. Based on the results of the calculation, it shows that the effect of the number of family dependents (X3) on welfare (Y) through income (Z) of local workers on the toll road project has a strong effect because the effect value is between 0.05 and 0.75.
4. The Effect of Age (X4) on Well-being (Y) through Income (Z)
It is known that the direct effect of X4 on Y is 0.023. Meanwhile, the indirect effect of X4 on Y through Z is the multiplication of the beta of Z on Y. The indirect effect of X4 on Y through Z is the multiplication of the beta value of X4 on Z and the beta value of Z on Y, which is $0.053 \times 0.988 = 0.052$. Based on the results of the calculation, it shows that the effect of age (X4) on welfare (Y) through income (Z) of local

workers on the toll road project has a strong effect because the effect value is 0.5-0.75.

Hypothesis Testing (t-test)

According to Ghozali (2018:98), the t-test is used to identify how far the influence of one independent variable individually explains the dependent variable.

Table 3
Partial Test Results

Variable Relationship	Sig.	t-statistic	t-critical	Decision
X1 → Z	0.049	2.054	1.692	H1 Accepted
X2 → Z	0.002	3.318	1.692	H2 Accepted
X3 → Z	0.000	8.307	1.692	H3 Accepted
X4 → Z	0.467	0.737	1.692	H4 Rejected
X1 → Y	0.023	2.393	1.692	H5 Accepted
X2 → Y	0.827	0.220	1.692	H6 Rejected
X3 → Y	0.054	-2.004	1.692	H7 Rejected
X4 → Y	0.792	0.267	1.692	H8 Rejected
Z → Y	0.000	4.674	1.692	H9 Accepted

Source: Data processed

Sobel Test

According to Ghozali (2018), the Sobel test is used to analyze the indirect effect of the independent variable (X) on the dependent variable (Y) through the intervening variable (Z).

1. Calculation of the Sobel test for variable X1

Given:

$a = 0.101$ (unstandardized value of X1 to Z) → $a_2: 0.0102$

$b = 0.932$ (unstandardized value of Z to Y) → $b_2: 0.8686$

$sa = 0.049$ (standard error value of X1 to Z) → $sa_2: 0.0024$

$sb = 0.199$ (standard error value of Z to Y) → $sb_2: 0.0396$

$Sab = \sqrt{b_2^2 sa_2^2 + a_2^2 sb_2^2 + sa_2^2 sb_2^2}$

$Sab = \sqrt{(0.8686)(0.0024)^2 + (0.0102)(0.0396)^2 + (0.0024)(0.0396)^2}$

$Sab = \sqrt{(0.0020) + (0.0004) + (0.0000)}$

$Sab = \sqrt{0.0024}$

$Sab = 0.0489$

The calculation of indirect influence uses the following formula:

$t = ab/Sab$

$t = 0.101 \times 0.932/0.0489$

$t = 1.9243$

From the above calculation, it can be seen that the t-value = 1.9243 and the t-table value = 1.692. Therefore, it can be concluded that t-value > t-table, meaning that labor (X1) affects welfare (Y) through income (Z). This can be interpreted as income mediating the effect of labor on welfare.

2. Calculation of the Sobel test for variable X2

Given:

$a = 0.164$ (unstandardized value of X2 to Z) → $a_2: 0.0268$

$b = 0.932$ (unstandardized value of Z to Y) → $b_2: 0.8686$

$sa = 0.049$ (standard error value of X2 to Z) → $sa_2: 0.0024$

$sb = 0.199$ (standard error value from Z to Y) → $sb_2 : 0.0396$

$Sab = \sqrt{b_2^2 sa_2^2 + a_2^2 sb_2^2 + sa_2^2 sb_2^2}$

$Sab = \sqrt{(0.8686)(0.0024)^2 + (0.0268)(0.0396)^2 + (0.0024)(0.0396)^2}$

$Sab = \sqrt{0.0020 + 0.0010 + 0.0001}$

$Sab = \sqrt{0.0031}$

$Sab = 0.0556$.

The calculation of indirect effects uses the following formula:

$$t = ab/Sab$$

$$t = 0.164 \times 0.932/0.0556$$

$$t = 2.7482$$

From the above calculations, it can be seen that the t-value = 2.7482 and the t-table value = 1.692. Therefore, it can be concluded that t-value > t-table, meaning that working hours (X2) affect welfare (Y) through income (Z). This can be interpreted as income mediating the effect of working hours on welfare.

3. Sobel test calculation X3

Given:

$$a = 0.390 \text{ (unstandardized value of X3 to Z)} \rightarrow a2: 0.1521$$

$$b = 0.932 \text{ (unstandardized value of Z to Y)} \rightarrow b2: 0.8686$$

$$sa = 0.047 \text{ (standard error value of X3 to Z)} \rightarrow sa2: 0.0022$$

$$sb = 0.199 \text{ (standard error value of Z to Y)} \rightarrow sb2: 0.0396$$

$$Sab = \sqrt{b2Sa2 + a2Sb2 + Sa2Sb2}$$

$$Sab = \sqrt{(0.8686)(0.0022) + (0.1521)(0.0396) + (0.0022)(0.0396)}$$

$$Sab = \sqrt{(0.0019) + (0.0060) + (0.0001)}$$

$$Sab = \sqrt{0.0080}$$

$$Sab = 0.0894$$

The calculation of indirect influence uses the following formula:

$$t = ab/Sab$$

$$t = 0.390 \times 0.932/0.0894$$

$$t = 4.0648$$

From the above calculation, it can be seen that the t-value = 4.0648 and the t-table value = 1.692. Therefore, it can be concluded that t-value > t-table, meaning that the number of dependents (X3) does not affect welfare (Y) through income (Z). This means that income can mediate the effect of the number of dependents on welfare.

4. Sobel test calculation X4

Given:

$$a = 0.040 \text{ (unstandardized value of X3 to Z)} \rightarrow a2: 0.0016$$

$$b = 0.932 \text{ (unstandardized value of Z to Y)} \rightarrow b2: 0.8686$$

$$sa = 0.055 \text{ (standard error value of X3 to Z)} \rightarrow sa2: 0.0030$$

$$sb = 0.199 \text{ (standard error value of Z to Y)} \rightarrow sb2: 0.0396$$

$$Sab = \sqrt{b2Sa2 + a2Sb2 + Sa2Sb2}$$

$$Sab = \sqrt{(0.8686)(0.0030) + (0.0016)(0.0396) + (0.0030)(0.0396)}$$

$$Sab = \sqrt{(0.0026) + (0.0001) + (0.0001)}$$

$$Sab = \sqrt{0.0028}$$

$$Sab = 0.0529$$

The calculation of indirect influence uses the following formula:

$$t = ab/Sab$$

$$t = 0.040 \times 0.932/0.0529$$

$$t = 0.7032$$

From the above calculation, it can be seen that the t-value = 0.7032 and the t-table value = 1.692. Therefore, it can be concluded that t-value < t-table, meaning that age (X4) does not affect welfare (Y) through income (Z). This means that income cannot mediate the effect of age on welfare.

Discussion

1. The Effect of Labor (X1) on Income (Z)

Based on the results of the hypothesis test, it shows that local workers are motivated to work on the toll road project. Furthermore, workers have the ability to be given directions or training by the toll road project coordinator. With their abilities, workers are able to produce more effective work, where the higher the productivity of workers, the greater the output produced and ultimately increasing income.

2. The Effect of Working Hours (X2) on Income (Z)

Based on the results of the hypothesis test, it shows that local workers often take on additional working hours (overtime) for a maximum of 3 hours, which leads to an increase in income.

3. The Effect of Number of Family Members (X3) on Income (Z)

Based on the results of the hypothesis test, it shows that local workers have large families and children who are still pursuing education. This becomes a motivator for workers and a reason for them to work harder to earn more income in order to meet their family's needs.

4. The Effect of Age (X4) on Income (Z)

Based on the results of the hypothesis test, it shows that the diversity of the age of local workers in the toll road project has a weak effect on income levels. This is because the age of workers is not a factor in increasing income in the toll road project sector. Due to the diversity of worker ages, the company continues to provide salaries in accordance with the hours worked.

5. The Effect of Labor (X1) on Welfare (Y)
Based on the results of hypothesis testing, it shows that local workers who have the ability and motivation to work can complete their work more efficiently so that workers have the opportunity to do other work without disrupting their main work.
6. The Effect of Working Hours (X2) on Welfare (Y)
Based on the results of hypothesis testing, it shows that working hours on toll road construction are scheduled. Workers who take the most overtime will work longer hours, which causes workers to tire easily due to lack of rest, thereby reducing worker productivity.
7. The Effect of Number of Family Dependents (X3) on (Z)
Based on the results of hypothesis testing, it shows that the number of family needs can be seen from the number of family members, the number of dependents or individuals in the family who are still dependent on the head of the family, which also has an impact on the amount of family expenses. In addition, there is a tendency for family members to borrow money from a third party, namely a bank, because some families want to fulfill their tertiary needs, which has an impact on high expenses and reduces their welfare.
8. The Effect of Age (X4) on Welfare (Y)
Based on the results of hypothesis testing, it shows that the age of toll workers is not a factor in the level of worker welfare because the income earned is low and can only meet basic needs. In addition, young people consume a lot and use their wages for leisure activities.
9. The Effect of Income (Z) on Welfare (Y)
Based on the results of hypothesis testing, it shows that the wages earned by local workers can meet their basic daily needs. The income received is used for savings so that they have sufficient savings for their future needs. In addition, the construction of toll roads provides local workers with jobs and a steady income. Then, the income earned is related to the fulfillment of various needs for each family. So, if the income is higher, it will be closely related to the increased welfare of the workers' families.
10. Indirect Effect of Labor on Welfare Through Income Based on the Sobel test calculation above, it can be seen that the t-value = 1.9243. Therefore, it can be concluded that t-value > t-table, meaning that labor (X1) has a significant effect on welfare (Y) through the income of local workers on the toll road project (Z). This means that income can mediate the effect of labor on the welfare of local workers on the toll road project in Maron District.
11. Indirect Effect of Working Hours (X2) on Welfare (Y) Through Income
Based on the Sobel test calculation above, it can be seen that the t-value = 2.7482. Therefore, it can be concluded that tcount > ttable, meaning that working hours (X2) have a significant effect on welfare (Y) through the income of local workers on the toll road project (Z). This means that income can mediate the effect of working hours on the welfare of local workers on the toll road project in Maron District.
12. The Effect of Number of Dependents (X3) on Welfare (Y) through the Income of Local Workers on Toll Road Projects (Z)
Based on the Sobel test calculation above, it can be seen that the t-value = 4.0648. It can be concluded that t-value > t-table, meaning that the number of dependents (X3) affects welfare (Y) through the income of local workers on the toll road project (Z). This means that income can mediate the effect of the number of dependents on the welfare of local workers in the toll road project in Maron District.
13. The Effect of Age (X4) on Welfare (Y) through the Income of Local Workers on Toll Road Projects (Z)
Based on the Sobel test calculation above, it can be seen that the t-value = 0.7032. Therefore, it can be concluded that t-value < t-table, meaning that age (X4) does not have a significant effect on welfare (Y) through the income of local workers in the toll road project (Z). This means that income cannot mediate the effect of age on the welfare of local workers in the toll road project in Maron District.

4. CONCLUSION

In a study entitled "Analysis of the Impact of Toll Road Construction Projects on Welfare Levels Through Local Labor Income in Maron District, Probolinggo Regency," it can be concluded that the variables of labor, working hours, and number of dependents have a significant direct effect on income. Meanwhile, the variable of age does not have a significant effect on income. Meanwhile, the variables of labor and income have a significant effect on welfare. However, working hours, number of dependents, and age do not have a significant effect on the welfare variable. For the indirect test using the Sobel test, it was concluded that the variables of labor, working hours, and number of dependents have a significant effect on welfare through income. Meanwhile, the age variable does not significantly affect welfare through income for local laborers working on

the toll road project in Maron District, Probolinggo Regency.

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