

Analysis of the socio-economic influence on fertility in the Tiang Pumpung sub-district Merangin regency, Jambi

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Abstract. A recent study of the high number of early births and marriages that often occur in villages, hence researchers take the title: analysis of the socioeconomic impact on fertility at pumpung, affected districts' research done to analyze the impact of economic conditions on family incomes, and the social conditions of wife work, wife education, married age of the wife using birth control.

Keywords: Socio-Economic; Fertility; Education

1 Introduction

Greater growth in population will have a distinct impact on various countries, greater density influenced fertility or living birth. While factors affecting the low fertility rate of first marriage age, use of family incomes and women status improvements. A premature age at first marriage can lead to premature weddings. Considering the many factors that influence fertility according to occupation experts, the level of education attained by the population particularly the female population represents one of the most significant factors affecting fertility.

The study of fertility was an important study in the field of occupation. This is because of several reasons: (1) fertility is responsible for biological replacement and the survival of a society: (2) fertility rates affect the growth of the number of people in a positive way.

Meaning increase (decrease) in population size: (3) uncontrolled fertility can cause social and political problems (junaidi and hardiani, 2009).

As for the purpose of this research, it is to know and analyze the effects of income I families, wife's education, and wife's work on fertility rates through the interprening variable age at first marriage and use of contraception in Tiang Pumpung District, Merangin Regency.

2 Methodology

The paper will use Analysis models path analysis. The methods used in this study are the methods of the survey, in which information and data come from sampled respondents using patterned, structured questions (questionnaires) lists and according to need. The data

used in this study are primary and secondary data. The techniques for collecting data in this study involve interviews and questionnaires. In the researchers 'data processing use qualitative and quantitative analysis using SPSS. As for the data analysis model in this study, it is an analysis model used to see the extent to which a directly and indirectly exotic variable might affect an endogenous variable.

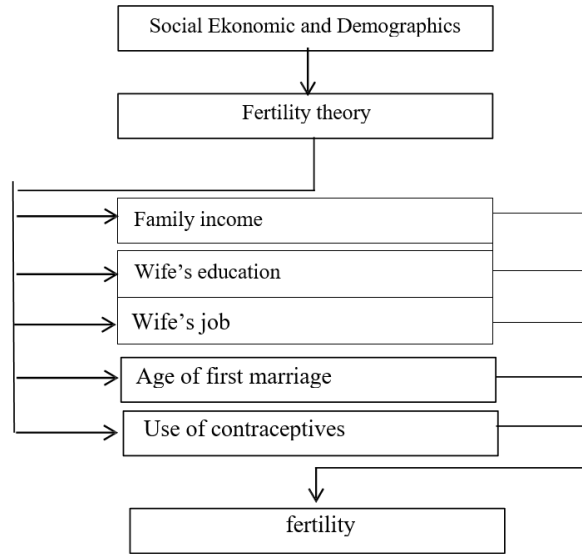


Figure 1. research framewok

One of the components that affect the rate of population growth is the magnitude of the fertility rate. This fertility rate is influenced by several socio-economic aspects. Demographics. From the conceptual framework above, it can be seen that what functions as independent variables are family income, education or wife, education or husband, wife's occupation, age at first marriage, and duration of use of contraceptives, while the dependent variable is fertility. the path analysis model use multiple linear regression equations, the basic equation can be written as follows (Hasan, 2008):

The analysis model can be applied based on the following diagram:

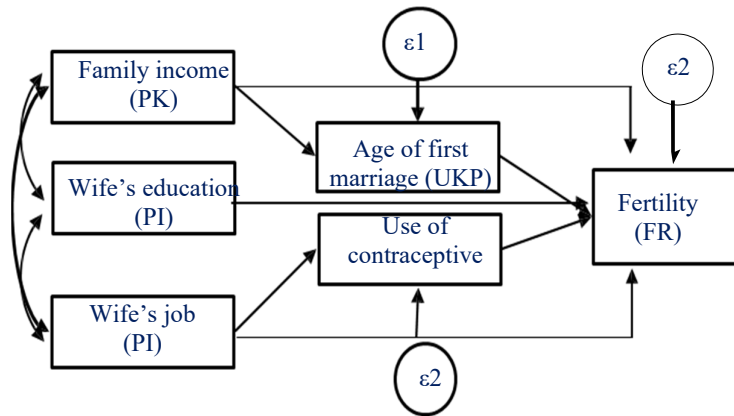


Figure 2. path Analysis

Model diagrams in the figure 2 The above shows that PK, PDI and PI have a direct and indirect effect on

FR through UKP and PAK. Based on Figure 3.1. There are 3 structural equations: $UKP = \rho_{ukp,pk} PK + \rho_{ukp,pd} PD + \rho_{ukp,pi} PI + \rho\epsilon_1$(3.1)

$PAK = \rho_{pak,pk} PK + \rho_{pak,pd} PD + \rho_{pak,pi} PI + \rho\epsilon_2$(3.2)

$FR = \rho_{fr,pk} PK + \rho_{fr,pd} PD + \rho_{fr,pi} PD + \rho_{fr,ukp} UKP + \rho_{fr,pak} PAK + \rho\epsilon_3$..(3.3)

description:

- FR = Fertility
- PK = family income
- PD = wife's education
- PI = wife' job
- UKP = Age of first marriage (year)
- PAK = Use of contraceptives
- ρ = rho
- e = disturbing variable

3 Result and Discussion

The social condition of the people of the Tiang Pumpung sub-district from year to year continues to improve. This is as a result of the provision of more adequate social infrastructure and facilities. Based on the research results, the average fertility of each child of childbearing age is 2 children, the average income is IDR 2,000,000, the average wife's education is elementary school, meaning that the education level is still low, and the wife does not work, and many get married at an average age of under 18 years old or underage, while the contraceptives used are injections.

Table 1. Structural Equation I Multiple Regression Results Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	14,285	14,285		12,872	,000		
PK	-4,145E-7	,000	-,174	-2,357	,020	,239	4,190
PDI	,596	,073	,698	8,125	,000	,176	5,679
PI	,555	,386	,089	1,438	,153	,339	2,953

a. Dependent Variable: UKP
 source : data processed, 2021

The results of the regression in the first equation are family income, wife's education has a significant effect on variable age at first marriage, while the wife's occupation has no significant effect.

Table 2. Structural Equation II Multiple Regression Results

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	2,514	,178		14,098	,000		
PK	-3,547E-7	,000	-1,421	-12,556	,000	,239	4,190
PDI	-,055	,012	-,616	-4,680	,000	,176	5,679
PI	-,153	,062	-,235	-2,471	,015	,339	2,953

a. Dependent Variable: PAK
 source : data processed, 2021

The results of the regression in the second equation are family income, wife's education, wife's work has a significant effect on the use of contraceptives.

Table 3. Structural Equation III Multiple Regression Results

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	,719	,677		1,062	,291		
PK	9,572E-7	,000	,893	12,08	,000	,092	10,862

PDI	-,056	,027	-,145	-2,050	,043	,100	10,000
PI	,571	,112	,204	5,117	,000	,316	3,162
UKP	-,011	,027	-,025	-,412	,681	,138	7,255
PAK	-,427	,169	-,099	-2,526	,013	,324	3,087

a. Dependent Variable: FR
source : data processed, 2021

In structural equation 3 using regression path analysis with interprening variables to see the effect of family income, wife's occupation and wife's education on fertility through age at first marriage and use of contraceptives, the results show that family income, wife's occupation and wife's education have no effect. significant effect on fertility through age at first marriage, while the variables between the use of contraceptives, family income, wife's occupation and wife's education have a significant effect on fertility.

Based on the correlation results, it can be seen the Pearson correlation between family income, wife's occupation and use of contraceptives so that a path diagram can be obtained which can be described:

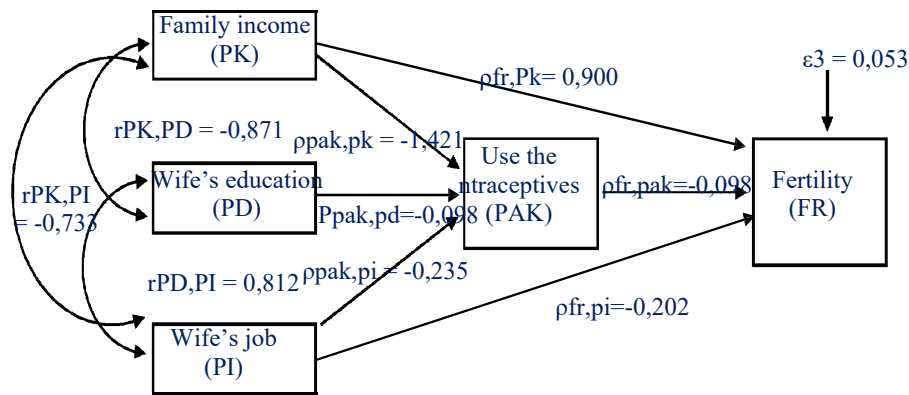


Figure 3. Path diagram of structural equation III

The direct and indirect effects of exogenous variables, namely family income, wife's occupation and use of contraceptives on fertility can be seen in Table

Table 4. Direct effect, indirect effect and total effect of structural equation III

	Causal influence					Total influence (%)
	Direct influence (%)	indirect (%)			Total influence (%)	
		PK (%)	PDI (%)	PI (%)		
PK → FR	81	-	12,69	-13,32	12,52	92,28

PDI →						
FR	2,62	12,69		-2,65	0,68	13,34
PI → FR	4,08	-13,32	-2,65	-	-0,6	-12,49
PAK						
→FR	0,96	-		-	-	0,96
The influence PK.PDI. PI and PAK to FR = R²						94,7
Effect of external variables						5,3
Total						100

source : data processed, 2021

The strength of family income which directly determines changes in fertility is 81 percent, and through its relationship with wife's education 12.69 percent, through its relationship with wife's work -13.32 percent and through the use of contraceptives by 12.52 percent. In total, family income determines fertility changes by 92.28 percent. Wife's educational strength which directly determines fertility changes is 2.62 percent, and through its relationship to family income is 12.69, through its relationship with wife's work is -2.65 percent and through the use of contraceptives is 0.68 percent. In total, the wife's occupation determines the changes in fertility by 13.34 percent. Wife's Employment Strength which directly determines Fertility changes is 4.08 percent, and through its relationship with family income is -13.32, which through its relationship with wife's education is -2.65 percent and through the use of contraceptives is -0 ,6 percent. In total, the wife's occupation determines the changes in Fertility by -12.49 percent. The power of using contraceptives that directly determine changes in fertility is 0.96 percent.

4 Conclusion

It is important for women to continue to improve their knowledge, especially through formal education, so that they can know, especially for married women, the importance of using contraceptives which can help to plan the number of children they will have and to suppress child births, thereby reducing child births. and will reduce the burden of expenses in the family so that the family will get a prosperous life. To be able to see the factors that affect fertility in the District of Tiang Pumpung, further research is needed. With the results of this research, it is hoped that it can contribute in knowing more deeply the factors that affect fertility.

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