

*Research Article*

## Determining Factors of Contraception Method Selection Decisions For Fertile Age Couples in East Denpasar District

Hani Alifiyah <sup>1\*</sup>, Ni Made Tisnawati <sup>2</sup>

1. Program Studi Ekonomi Pembangunan, Fakultas Ekonomi dan Bisnis, Universitas Udayana  
e-mail : [alifiyahhani@gmail.com](mailto:alifiyahhani@gmail.com)
2. Program Studi Ekonomi Pembangunan, Fakultas Ekonomi dan Bisnis, Universitas Udayana  
e-mail : [alifiyahhani@gmail.com](mailto:alifiyahhani@gmail.com)

Corresponding Author: **Hani Alifiyah**

**Abstract:** Denpasar City has the highest number of babies born with a birth rate of 16,453 with a TFR of 1.85. In 2023, the number of fertile couples will be 13,459. Data analysis techniques used in research this is binary logistic with Nagelkerke R Square value of 0.933 couples with a percentage of new acceptors of 48.56 percent. East Denpasar District is a district that has successfully implemented the family planning program which is an example for other areas. The purpose of this study was to analyze the husband's age, wife's age, income, husband's education, wife's education, and number of children on the decision to choose a contraceptive method for fertile couples in East Denpasar District. The results of this study indicate that 1) Husband's age, wife's age, income, husband's education, wife's education, and number of children have a simultaneous effect on probability decision on choosing a contraceptive method for fertile couples in East Denpasar District. 2) Partially, the husband's age, income, husband's education, and wife's education have a negative and significant effect on probability decision on choosing a contraceptive method for fertile couples in East Denpasar District. 3) The wife's age variable has a positive and significant effect on probability decision on choosing a contraceptive method for fertile couples in East Denpasar District. 4) The number of children does not affect probability decision on choosing contraceptive methods for fertile age couples in East Denpasar District.

**Keywords:** acceptorkb, Age, education, income, number of children, probabilitydecision

### 1. Introduction

According to A. Mahendra (2017) fertility reflects the real reproductive results of a woman or a group of women, while in a demographic perspective, it refers to the number of babies born alive. The number of births in a population is influenced by factors such as age structure, education level, age at first marriage, number of marriages, women's employment status, use of contraception, and income or wealth. Total Fertility Rate (TFR) or Total Fertility Rate is one indicator to compare success between regions in implementing socio-economic development (Andini & Ratnasari, 2018). Total Fertility Rate (TFR) is the average number of children a woman would have had by the end of her reproductive years if she had followed the fertility pattern at the time the TFR was calculated.

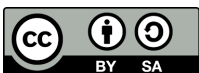
Received: February 11<sup>th</sup>, 2025

Revised: February 23<sup>th</sup>, 2025

Accepted: March 08<sup>th</sup>, 2025

Online Available: March 12<sup>th</sup>, 2025

Curr. Ver.: March 12<sup>th</sup>, 2025



Copyright: © 2025 by the authors.

Submitted for possible open

access publication under the

terms and conditions of the

Creative Commons Attribution

(CC BY SA) license

([https://creativecommons.org/li](https://creativecommons.org/licenses/by-sa/4.0/)

[censes/by-sa/4.0/](https://creativecommons.org/licenses/by-sa/4.0/))

**Table 1. Number of Babies Born and Total Fertility Rate (TFR) by Regency/City in Bali Province 2020**

Regency/City	Number of Babies Born	TFR Amount
Jembrana Regency	4,228	2.15
Tabanan Regency	5,176	1.81
Badung Regency	10,485	1.89
Gianyar Regency	6,480	1.91
Klungkung Regency	2,742	2.16
Bangli Regency	3,404	2.15
Karangasem Regency	6,949	2.31
Buleleng Regency	7,828	2.24
Denpasar City	16,453	1.85
<b>Bali Province</b>	<b>63,745</b>	<b>2.04</b>

Source: Central Statistics Agency of Bali Province, 2020

Table 1 shows that in 2020 in Bali Province there were 63,745 babies born with a TFR of 2.04, meaning an average of 2 children were born to one woman in Bali Province during her reproductive period. Denpasar City is the area with the highest number of babies born with a birth rate of 16,453 and a TFR of 1.85, meaning an average of 2 (rounded) children were born to one woman in Denpasar City. Areas with the highest number of babies born low located in Klungkung Regency with the number of babies born amounting to 2,404 and the number of TFR amounting to 2.15 which means an average of 2 (rounded) children were born to one woman in Klungkung Regency.

**Table 2. Number of Fertile Age Couples, New Acceptors, and PUS According to New KB Participants Against Districts/Cities in Bali Province 2022**

Regency/City	Number of Fertile Age Couples (FAP)	New Acceptor
Jembrana Regency	47,146	1,669
Tabanan Regency	63,280	793
Badung Regency	68,091	1,383
Regency, Gianyar	67,534	1,278
Klungkung Regency	28,647	575
Bangli Regency	39,344	1,067
Karangasem Regency	76,297	578
Buleleng Regency	105,274	2,102
Denpasar City	65,724	2,803
<b>Bali Province</b>	<b>561,337</b>	<b>11,528</b>

Source: BPS Bali Province, 2022

Based on Table 2, it shows that Bali Province has 561,337 pairs of Fertile Age Couples (PUS), with the number of new acceptors or new KB participants of 11,528 people, and the percentage of new KB participants to PUS of 2.05 percent. Table 1.2 explains that Denpasar City has 65,724 pairs of Fertile Age Couples (PUS) or 11.7 percent, with the number of new acceptors or new KB participants of 2,803 people, and the percentage of new KB participants to PUS of 4.26 percent, where Denpasar City is the area with the highest number of acceptors in Bali Province.

The height percentage New KB acceptors in Denpasar City make this location suitable for research, especially related to population policy programs. Family Planning is one of the BKKBN programs, which basically aims to regulate the number of births so as not to cause direct harm to the mother, baby, father, family, or the community concerned. This means that family planning in everyday life revolves around efforts to prevent conception or fertilization by avoiding the meeting between sperm cells (spermatozoa) and egg cells (ovum). According

to Koes Irianto (2014), the concept of family planning is explained as an effort to regulate child birth, the ideal distance and age of childbirth, and regulate pregnancy through promotion, protection, and assistance in accordance with reproductive rights, with the aim of realizing a quality family. According to the Republic of Indonesia Law Number 52 of 2009 CHAPTER I Article 1 concerning Population Development and Family Development as a legal basis containing various definitions that Family Planning (KB) is an effort to regulate child birth, the ideal distance and age of childbirth, regulate pregnancy through promotion, protection and assistance in accordance with reproductive rights to realize a quality family.

The Family Planning (KB) program is aimed at meeting demandserviceKB, providing quality reproductive health services, and controlling birth rates in the hope of improving the quality of the population and creating quality small families. In the context of the KB program's objectives for families, it is seen that this program provides significant benefits, especially for the future of children. The KB program can be considered a positive action that consistently helps shape a healthy and resilient generation. The implementation of the KB program's objectives also aims to form small families that are in accordance with the family's socio-economic capabilities, by regulating the number of births in order to create happy and prosperous families that are able to meet their needs (Sulistiyawati, 2013). Another objective of the KB program is to significantly reduce the birth rate, and to achieve this goal, policies are implemented thatcategorizedin three phases (spacing, delaying, and stopping). This policy aims to protect mothers and children fromriskgiving birth at a young age, maintaining proper birth spacing, and reducingriskgiving birth at an old age (Hartanto, 2002).

Contraceptives have enormous benefits in family planning programs, but it is important to remember that not all contraceptive methods are suitable for every woman's condition. The choice of contraception is related to each individual's ability to choose the method that is right for them. Based on the duration of its effectiveness, contraception can be grouped into two categories. First, there are contraceptive methods recommended by the government, namely Long-Term Contraceptive Methods (LTM), which include types such as IUD (Intrauterine Device), contraceptive implants, Male Surgical Methods (MOP), and Female Surgical Methods (MOW). Second, there are Non-LTM methods, including condoms, pills, injections, and other methods that are not included in the LTM category (Sri Setiasih, 2016).

**Table 3. Number of Active KB Participants According to Contraceptive Method Per Regency/City in Bali Province**

Regency/City	MKJP				Non-MKJP			Amount
	IUD	MOP	MOW	Implant	Condom	Injection	Pill	
Jembrana	3.294	1.289	90	3.210	359	18,838	2.102	29,182
Tabanan	12,845	2,610	124	847	709	18,357	3.228	38,720
Badung	13.223	3,706	139	425	1.153	12.255	3.255	34.156
Gianyar	15,672	2,994	148	825	1.184	9.312	6,818	36,953
The city of Klungkung	4.318	965	51	1,548	307	6,319	1.192	14,700
Bangli	7,482	1,699	134	1,441	322	12,416	2,794	26,288
Karangasem	17,006	2.413	153	3.211	434	18,035	3.148	44,400
Buleleng	13,822	3,541	310	2,866	869	32,499	5,673	59,580
Denpasar	10,830	3.398	140	696	1.255	8.255	2.963	27,537
<b>Total number</b>	<b>98,492</b>	<b>22,615</b>	<b>1.289</b>	<b>15,069</b>	<b>6,592</b>	<b>136,286</b>	<b>31,173</b>	<b>311,516</b>

Source: Central Bureau of Statistics, 2023

Table 3 shows that active family planning participants in 2022 in Bali Province who use the injection contraceptive method have the highest number in the type of family planning used by acceptors, namely 43.74%. Buleleng Regency has the highest number of active family planning participants among other regencies, namely 59,580 people who use family planning based on the contraceptive method. The number of family planning users who are in the third lowest position based on the contraceptive method used are in Klungkung Regency, Bangli Regency, and Denpasar City. According to WHO (World Health Organization), family

planning or family planning/contraception methods are actions that help individuals or married couples to avoid unwanted births. This condition can be achieved by encouraging fertile couples (PUS) to participate in the Family Planning program by using contraceptive methods.

The decision of fertile couples to use contraception is influenced by several factors, one of which is based on behavioral theory according to Lawrence Green in Winarni, E, & Dawam, M. (2016). This PUS behavior is influenced by three main factors, namely predisposing factors, enabling factors, and reinforcing factors. The first factor, predisposing factors, are factors that facilitate or underlie the occurrence of behavior, and can be observed through variables such as age, education, knowledge, attitudes, parity, and health history. The second factor is the enabling factor, which includes factors that facilitate or enable behavior to occur, such as family planning services involving rooms, tools, and transportation. The third factor is the reinforcing factor, which includes factors that strengthen behavior, such as support from husbands and support from family planning service officers.

**Table 4. Amount Fertile Age Couples (FAP) and Percentage of New Acceptors to PUS by District in Denpasar City, 2022-2023**

Subdistrict	Number of Fertile Age Couples (FAP)		Percentage of New Acceptors to PUS	
	2022	2023	2022	2023
West Denpasar	16,859	19,359	42.21	50.80
North Denpasar	17,252	19,278	44.93	52.25
East Denpasar	12,201	13,459	48.56	54.97
South Denpasar	19,412	23,540	38.04	53.44
Denpasar City	65,724	75,636	42.87	52.73

Source: BKKBN Bali, 2023 (Data processed)

Table 4 shows that the number of fertile couples (PUS) in East Denpasar District of 12,201 couples in 2022 increased by 1,258 couples (10.3%) to 13,459 couples in 2023. East Denpasar District has the lowest number of fertile couples compared to other districts. However, the percentage of new acceptors in Fertile Couples (PUS) in East Denpasar District is in the highest position in the percentage of new acceptors in Fertile Couples (PUS) of 48.56 percent in the year 2022 and increased by 6.41 percent to 54.97 percent.

This study explains the factors that influence The highest percentage of new acceptors in East Denpasar District is unknown and has not been found, so this research is important to carry out with the aim of finding out what factors, especially the dominant factors, are influenced by decision on choosing a contraceptive method for fertile couples in East Denpasar District, so that the research results can be used as a reference for other districts or areas to increase the number of KB users, especially long-term contraceptive methods. This study will consider several factors such as husband's age, wife's age, family income, husband's education level, wife's education level, and number of children which are the main considerations in the decision of fertile couples in choosing a contraceptive method.

According to Maula, Aminatul (2014) a person's age affects the type of contraception chosen. The age of the fertile couple or KB acceptor is related to the continuity of contraceptive use, the higher the age, the higher the rate of continuity of contraceptive use. If the acceptor/woman is older and has a large number of children, they will be more able to tolerate side effects so that the continuity of contraceptive use will last longer (Wulandari1 & Nisa, 2022).

Cost is a major consideration for someone in choosing a contraceptive, where the amount of cost to obtain a contraceptive has a significant impact on the decision to use it (Hartono, 2015). The use of contraceptives requires financial investment both in acquisition and use. The effectiveness of contraceptive use helps reduce uncertainty regarding the time of birth of a child, and at the same time provides an opportunity to optimize time and energy in

the family's economic role. The amount of cost associated with choosing a contraceptive device or method is closely related to the socioeconomic level and family income. In line with this, families will adjust their choice of contraceptives according to their economic capacity to meet the needs in planning the number of children they will have. The level of family income has a positive and significant effect on the use of contraceptives. These findings confirm that KB Acceptors are more likely to choose contraceptives that are in accordance with the family's economic capacity, and the higher the family income, the greater the individual's dedication to meeting KB needs, especially in terms of finances (Hanafi, 2019).

Education level plays a key role in the success of the family planning program. Education is an essential means to access health-related information, which in turn can improve welfare and quality of life. High and low education levels are closely related to the attitudes and outlook on life of a society. Education can be a background for someone to gain broader knowledge.

The number of children is one of the factors that influences use of contraceptives. The number of children in a family can be influenced by the age of the woman's first marriage. The number of children a fertile couple has influences their decision in determining the contraceptive method. Couples who have few children tend to choose contraceptive methods with low levels of effectiveness, while couples with many children are more likely to choose contraceptives with higher levels of effectiveness (Dewi, 2017).

## 2. Research methods

The research design used in this study is a quantitative approach in the form of associative (Sugiyono, 2018). In this study, associative research is used to analyze the factors that influence the decision to choose a contraceptive method in fertile couples in East Denpasar District. Where the factors in question include age, family income, education level, and number of children on the Decision to Choose a Contraceptive Method in Fertile Couples in East Denpasar District.

This research was conducted in Denpasar City, precisely in East Denpasar District. The location was chosen because the district in East Denpasar has the highest percentage of KB acceptor users among other districts in Denpasar City. Thus, this location is relevant to be used as a research location in accordance with the main problem to determine which variables influence the Probability of Contraceptive Method Selection Decisions in Fertile Age Couples in East Denpasar District.

The population in this study were fertile couples who used various types of contraception in East Denpasar District with a population of fertile couples of 13,459 people. The data analysis technique used in research this is binary logistic with Nagelkerke R Square value of 0.933.

## 3. Results And Discussion

### Characteristics Research Respondents

#### Characteristics Respondents Based on Husband's Occupation Group

Table 5. Respondent Characteristics Based on Husband's Occupational Group

No	Employment Status	Number of Respondents	Percentage
1.	Private employees	59	59%
2.	Self-employed	25	25%
3.	Laborer	8	8%
4.	civil servant	7	7%
5.	Retired	1	1%
Total		100	100

#### Characteristics Respondents Based on Wife's Occupational Group

Table 6. Characteristics Respondents Based on Wife's Occupational Group

No	Employment Status	Number of Respondents	Percentage
1.	housewife	41	41%
2.	Private employees	41	41%
3.	Self-employed	17	17%
4.	civil servant	1	1%
Total		100	100%

### Identification of Research Variables

#### Identification of Decision Variables in Tool Selection Contraception

Contraception if grouped according to the period of use is divided into two types, namely MKJP (Long-Term Contraceptive Method) and Non MKJP (Non Long-Term Contraceptive Method). The following is the identification of variables for the Decision to Choose a Device Contraception described in Table 7.

**Table 7. Identification of Decision Variables in Choosing Contraceptive Devices**

No	Employment Status	Number of Respondents	Percentage
1.	MKJP	52	52%
2.	Non MKJP	48	48%

### Statistical Analysis Results

#### Descriptive Statistical Analysis Results

**Table 8. Analysis Descriptive Statistics**

	N	Minimum	Maximum	Mean	Std. Deviation
Husband's Age	100	24.00	65.00	40.4400	8.30519
Wife's Age	100	23.00	52.00	36.9700	7.39704
Income	100	2500000.00	5000000.00	3768000.0000	526256.07317
Husband's Education	100	6.00	16.00	13.8500	2.45926
Wife's Education	100	6.00	16.00	11.2400	2.97505
Number of children	100	1.00	5.00	2.8400	1.05141
Dummy Y	100	.00	1.00	.5200	.50212
Valid N (listwise)	100				

Source: Appendix 3

Information :

- X1 = Husband's Age (Years)
- X2 = Wife's Age (Years)
- X3 = Income (Rupiah)
- X4 = Education Husband (Year)
- X5 = Education Wife (Year)
- X6 = Number of Children (People)
- Y = Contraceptive Method Selection Decision (Dummy)

Based on Table 8 presented can be interpreted as follows:

- 1) The husband's age variable (X1i) from the data has a minimum value of 24 years, a maximum value of 65 years and an average of 40.44 years and a standard deviation of 8.30 years. From the distribution of data, it shows that the age of the respondent's husband is in a fertile condition.
- 2) The wife's age variable (X2i) from the data has a minimum value of 23 years, a maximum value of 52 years and an average of 36.97 years and a standard deviation of 7.39 years. From the distribution of data, it shows that the age of the respondent's wife is in a fertile condition.

- 3) The family income variable (X3i) from the data has a minimum value of 2,500,000.00 rupiah, a maximum value of 5,000,000.00 rupiah and an average of 3,700,000.00 rupiah and a standard deviation of 526,256.07 rupiah.
- 4) The husband's education level variable (X4i) from the data has a minimum value of 6 years, a maximum value of 16 years and an average of 13.85 years and a standard deviation of 2.45 years. From the distribution of the data, the standard deviation in this variable reflects a fairly large variation in education levels, which can be influenced by economic factors and the individual's desire to continue education.
- 5) The variable of wife's education level (X5i) from the data has a minimum value of 6 years, a maximum value of 16 years and an average of 11.24 years, and a standard deviation of 2.97 years. From the distribution of the data, the standard deviation in this variable reflects a fairly large variation in education level, which can be influenced by economic factors and the individual's desire to continue education.
- 6) The variable number of children (X6i) from the data has a minimum value of 1 person, a maximum value of 5 people and an average of 2.84 people, and a standard deviation of 1.051 people.
- 7) The decision variable for choosing a contraceptive method (Yi) from the data has a minimum value of 0.0, which means that respondents use non-MKJP contraception, a maximum value of 1, which means that respondents use MKJP contraception, and an average of 0.52 and a standard deviation of 0.50.

#### Goodness-of-Fit Testing

Table 9. Hosmer and Lemeshow Test

Step	Chi-square	df	Sig.
1	.716	8	.999

Source: Appendix 4

Based on Table 9, it is known that the Chi-square value is 0.716 with a value of significance  $0.999 > 0.05$  can be concluded that the model is acceptable. This means that the data fit and there is no difference between the predicted classification and the observed classification so that the logistic regression model used can explain the data and can be used for further analysis.

#### Coefficient Determination

Table 10. Coefficient Determination

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	18.267a	.699	.933

a. Estimation terminated at iteration number 10 because parameter estimates changed by less than .001.

Source: Appendix 4

Based on Table 10, it can be seen that the Nagelkerke R Square value is 0.933, which means that 93.3 percent of the variation in the decision to choose a contraceptive method in fertile couples in East Denpasar District is influenced by variations in the husband's age, wife's age, family income, husband's education, wife's education, and number of children. While the remaining 6.7 percent is influenced by other variables outside the research model.

#### Test Significance Coefficient Simultaneous Regression

Table 11. Omnibus Tests of Model Coefficients

		Chi-square	df	Sig.
Step 1	Step	120.202	6	.000
	Block	120.202	6	.000
	Model	120.202	6	.000

Source: Appendix 4

Based on Table 11, it can be seen that the value of  $X^2_{\text{Calculate}} = 120.202 > X^2_{\text{table}} = 12.591$ , so  $H_0$  is rejected and  $H_1$  is accepted. This means that the variables of husband's age (X1i), wife's age (X2i), family income (X3i), husband's education (X4i), wife's education (X5i), and number of children (X6i) have a simultaneous effect on the variable Y namely the decision to choose a contraceptive method in East Denpasar District.

Significance Coefficient Partial Regression

Table 12. Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1a	Husband's Age	-.688	.337	4.159	1	.041	.503
	Wife's Age	1.190	.475	6.273	1	.012	3.286
	ln_Revenue	-44,600	14,280	9,755	1	.002	.000
	Husband's Education	-2.255	.840	7.212	1	.007	.105
	Wife's Education	-1.036	.375	7.625	1	.006	.355
	Number of children	1,870	1,032	3.285	1	.070	6.486
	Constant	697,496	223,056	9,778	1	.002	8.294E+302

a. Variables entered on step 1: Husband's Age, Wife's Age, ln\_Income, Husband's Education, Wife's Education, Number of Children.

Source: Appendix 4

$$Li = \ln \frac{Pi}{1-Pi} = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \epsilon_1$$

$$Li = \ln = 697.496 - 0.688X_1 + 1.190X_2 - 44.600X_3 - 2.555X_4 - 1.036X_5 + 1.897X_6 + \epsilon_1 \frac{Pi}{1-Pi}$$

$$S.E. = (223.056)(0.337)(0.475)(4.28)(0.840)(0.375)(1.032)$$

$$Sigwald = (9.778)(4.159)(6.273)(9.755)(7.212)(3.285)(1.032)$$

Based on Table 12, the results of hypothesis testing using binary logistic analysis can be obtained as follows:

- 1) Husband's age has a negative effect on the decision to choose a contraceptive method in fertile couples in East Denpasar District. It is indicated by the  $\beta_1$  value of -0.688 and the results of the Wald test with a Sigwald value = 0.041 which is smaller than the level of significance = 0.05 which shows that H1 is rejected and H0 is accepted, meaning that the husband's age has a negative and significant effect on the probability of the decision to choose a contraceptive method. MKJP in fertile couples in East Denpasar District.  $\beta_1$  of -0.688 has a negative value, meaning if the husband's age increases by 1 year, the probability of fertile couples using MKJP contraception decreases by ) =

$$0.334(p = \frac{1}{1 + e^{-(-0.688)}}$$

- 2) Wife's age has a positive effect on the decision to choose a contraceptive method in fertile couples in East Denpasar District. It is indicated by the  $\beta_2$  value of 1.190 and the results of the Wald test with a Sigwald value = 0.012 which is smaller than the level of significance = 0.05 which shows that H0 is rejected and H1 is accepted, meaning that the wife's age has a positive and significant effect on the probability of the decision to choose a contraceptive method. MKJP in fertile couples in East Denpasar District.  $\beta_2$  of 1.190 has a positive value, meaning if the wife's age level increases by 1 year, then the probability of fertile couples using MKJP contraception increases by ) = 0.880(p =

$$\frac{1}{1 + e^{-(1.190)}}$$

- 3) Income has a negative effect on the probability of the decision to choose a contraceptive method.MKJPin fertile couples in East Denpasar District. Indicated by the  $\beta_3$  value of -44.600 and the results of the Wald test with a Sigwald value = 0.002 smaller than the level of significance = 0.05 which indicates that H0 is rejected and H1 is accepted, meaning that income has a negative and significant effect on the probability of the decision to choose a contraceptive methodMKJPin fertile couples in East Denpasar District.  $\beta_3$  of -44.600 has a negative value, meaningif the income level increases by 1 rupiah, the probability of fertile couples using MKJP contraception decreases by  $) = 0.427(p = \frac{1}{1 + e^{-(-44,6)}}$
- 4) Husband's education has a negative effect on the probability of the decision to choose a contraceptive method.MKJPin fertile couples in East Denpasar District. Indicated by the  $\beta_4$  value of -2.255 and the results of the Wald test with a Sigwald value = 0.007 smaller than the level of significance = 0.05 which shows that H0 is rejected and H1 is accepted, meaning that the husband's age has a significant effect on the probability of the decision to choose a contraceptive methodMKJPin fertile couples in East Denpasar District.  $\beta_4$  of -2.225 has a negative value, meaningif the husband's education level increases by 1 year, the probability of fertile couples using MKJP contraception decreases by  $) = 0.094(p = \frac{1}{1 + e^{-(-2,255)}}$
- 5) Wife's education has a negative effect on the probability of the decision to choose a contraceptive method.MKJPin fertile couples in East Denpasar District. Shown by the  $\beta_5$  value of -1.036 and the results of the Wald test with a Sigwald value = 0.006 smaller than the level of significance = 0.05 which shows that H0 is rejected and H1 is accepted, meaning that the wife's education has a significant effect on the probability of the decision to choose a contraceptive methodMKJPin fertile couples in East Denpasar District. B5 of -1.036 has a negative value, meaningif the wife's education level increases by 1 year, the probability of fertile couples using MKJP contraception decreases by  $) = 0.314(p = \frac{1}{1 + e^{-(-1,036)}}$
- 6) The number of children has a positive effect on the probability of the decision to choose a contraceptive method for fertile couples in East Denpasar District. It is indicated by the  $\beta_6$  value of 1.870 and the results of the Wald test with a Sigwald value = 0.070 greater than the level of significance = 0.05 which shows that H1 is rejected and H0 is accepted, meaning that the number of children has no significant effect on the decision to choose a contraceptive method for fertile couples in East Denpasar District. With a Sigwald value greater than0.05 then the value of  $\beta_6$  means nothing and has no probability value.

#### 4 Discussion

**The Influence of Husband's Age on the Probability of the Decision to Choose a Contraceptive MethodMKJPin Fertile Age Couples in East Denpasar District.**

Based on the results of the study,  $\beta_1$  of -0.688 has a negative value, meaning that if the husband's age increases by 1 year, the probability of fertile couples to use MKJP contraception decreases by 0.334. This is indicated by the  $\beta_1$  value of -0.688 and the results of the Wald test with a Sigwald value = 0.041 which is smaller than the level of significance = 0.05, which indicates that H1 is rejected and H0 is accepted, meaning that the husband's age has a negative and significant effect on the decision to choose a contraceptive method for fertile couples in East Denpasar District.

**The Influence of Wife's Age on the Probability of the Decision to Choose a Contraceptive Method MKJP in Fertile Age Couples in East Denpasar District.**

Based on the test results,  $\beta_2$  of 1.190 has a positive value, meaning if the wife's age level increases by 1 year, then the probability of fertile couples to use MKJP contraception increases by 0.880. This means that the wife's age has a positive effect on the decision to choose the method MKJP contraception in fertile couples in East Denpasar District. It is indicated by the  $\beta_2$  value of 1.190 and the results of the Wald test with a Sigwald value = 0.012 which is smaller than the level of significance = 0.05 which indicates that H0 is rejected and H1 is accepted, meaning that the wife's age has a positive and significant effect on the decision to choose a contraceptive method MKJP in fertile age couples in East Denpasar District.

**The Influence of Income on the Probability of the Decision to Choose a Contraceptive Method MKJP in Fertile Age Couples in East Denpasar District.**

Income has a negative effect on the decision to choose a contraceptive method MKJP in fertile couples in East Denpasar District.  $\beta_3$  of -44.600 has a negative value, meaning if income level increases by 1 rupiah, the probability of fertile couples to use MKJP contraception decreases by 0.427. It is indicated by the  $\beta_3$  value of -44.600 and the results of the Wald test with a Sigwald value = 0.002 which is smaller than the level of significance = 0.05 which shows that H0 is rejected and H1 is accepted, meaning that income has a negative and significant effect on the decision to choose a contraceptive method MKJP in fertile age couples in East Denpasar District.

**The Influence of Husband's Education on the Probability of the Decision to Choose a Contraceptive Method MKJP in Fertile Age Couples in East Denpasar District.**

Husband's education has a negative influence on the decision to choose a contraceptive method MKJP in fertile couples in East Denpasar District.  $\beta_4$  of -2.225 has a negative value, meaning if the husband's education level increases by 1 year, then the probability of fertile couples to use MKJP contraception decreases by 0.094. This is indicated by the  $\beta_4$  value of -2.225 and the results of the Wald test with a Sigwald value = 0.007 which is smaller than the level of significance = 0.05 which shows that H0 is rejected and H1 is accepted, meaning that the husband's age has a negative and significant effect on the decision to choose a contraceptive method MKJP in fertile age couples in East Denpasar District.

In general, increasing the husband's education level should be able to expand their knowledge about various contraceptive options, including long-term contraception such as MKJP. However, the findings of this study indicate that husband's education actually has a negative effect on the choice of long-term contraception (MKJP). This is due to limited knowledge about contraceptive methods. Although in theory, husbands with higher education should have better knowledge about various contraceptive methods, in practice, knowledge about MKJP is not always followed by a desire to choose the method. Husbands with higher

education may be more likely to choose more flexible and easily accepted methods, such as birth control pills or injections, which can be stopped at any time without more complicated medical procedures.

### **The Influence of Wife's Education on the Probability of the Decision to Choose a Contraceptive Method MKJP in Fertile Age Couples in East Denpasar District.**

Wife's education has a negative influence on the decision to choose a contraceptive method MKJP in fertile age couples in East Denpasar District.  $\beta_5$  of -1.036 has a negative value, meaning if the wife's education level increases by 1 year, then the probability of fertile couples to use MKJP contraception decreases by 0.314. This is indicated by the  $\beta_5$  value of -1.036 and the results of the Wald test with a Sigwald value = 0.006 which is smaller than the level of significance = 0.05 which shows that  $H_0$  is rejected and  $H_1$  is accepted, meaning that the wife's education has a negative and significant effect on the decision to choose a contraceptive method MKJP in fertile age couples in East Denpasar District.

This study shows that increasing wife's education is actually related to a lower tendency to choose long-term contraceptive methods (LMPs). This could be caused by several factors, among them is a preference for family control. Wives with higher education may be more likely to choose more flexible contraceptive methods, such as birth control pills or birth control injections, which allow them to more easily plan or delay pregnancy according to family needs.

### **The Influence of the Number of Children on the Probability of the Decision to Choose a Contraceptive Method MKJP in Fertile Age Couples in East Denpasar District.**

The number of children has a positive but insignificant effect on the decision to choose a contraceptive method MKJP in fertile couples in East Denpasar District. Shown by the  $\beta_6$  value of 1.870 and the results of the Wald test with a Sigwald value = 0.070 greater than the level of significance = 0.05 which shows that  $H_1$  is rejected and  $H_0$  is accepted, meaning that the number of children has a positive and insignificant effect on the probability of the decision to choose a contraceptive method MKJP in fertile couples in East Denpasar District. With a sigwald value greater than 0.05 then the value of  $\beta_6$  means nothing and has no probability value.

The results of this study indicate that although there is a positive relationship between the number of children and the choice of contraceptive method, the effect is not significant. A larger number of children should increase the tendency to choose a more permanent contraceptive method, but many couples choose to continue using a more flexible method. Social, cultural, and economic factors may be more dominant in influencing this decision, so that although there is a positive relationship, the effect of the number of children is not significant enough to influence the decision to choose a contraceptive method for fertile couples in East Denpasar District.

## **5. Conclusion**

Based on the results of the discussion that has been outlined, several conclusions can be drawn as follows:

- 1) The results of the study showed that the husband's age, wife's age, family income, husband's education, wife's education, and number of children of respondents had a simultaneous and significant influence on the decision to choose a contraceptive method in fertile couples in East Denpasar District.

- 2) The results of the study partially show that the wife's age has a positive and significant effect on the probability of the decision to choose a contraceptive method.MKJPin fertile age couples in East Denpasar District
- 3) The results of the study showed that the husband's age, family income, husband's education, and wife's education had a negative and significant effect on the probability of the decision to choose a contraceptive method.MKJPin fertile age couples in East Denpasar District.
- 4) The results of the study showed that the number of children did not affect the probability of the decision to choose a contraceptive method.MKJPin fertile age couples in East Denpasar District.

## References

- [1] Adioetomo SM, Samosir OB. (2010). Dasar-Dasar Demografi Edisi 2. Jakarta: Salemba Empat.
- [2] Andini, N., & Ratnasari, V. (2019). Pemetaan total fertility rate (TFR) di Jawa Timur menggunakan pendekatan regresi logistik biner dengan efek interaksi. *Jurnal Sains dan Seni ITS*, 7(2), 168-175.
- [3] Andrews, CH., et al. (2012). Determinants Of Consistent Condom Use Among Female Sex Workers In Savannakhet, Lao PDR. *Journal BMC*, pp.17
- [4] Anggio. (2012). Faktor-Faktor Yang Memengaruhi Pemilihan Kontrasepsi. *Journal STIKES Telogorejo*. hal.8-9.
- [5] Anita, Lontaan. (2014). Faktor-Faktor Yang Berhubungan Dengan Pemilihan Kontrasepsi Pasangan Usia Subur di Puskesmas Damau Kabupaten Talaud. *Jurnal Ilmiah Bidan Poltekkes Kemenkes Manado*. vol. 2.
- [6] Apriani, Anak Agung Rai Inten dan Ni Luh Karmini. 2021. Faktor Sosial dan Ekonomi yang Mempengaruhi Probabilitas Penggunaan Alat Kontrasepsi di Desa Kesiman Kertalangu. E- *Jurnal Ekonomi Pembangunan*, [S.l.], v. 5, n. 6, p. 2283 - 2312, june 2021. ISSN 2303-0178
- [7] Arikunto S. (2002). Metodologi Penelitian Suatu Pendekatan Proposal. Jakarta: PT. Rireka Cipta
- [8] Aryati, S., Sukamdi, & Widyastuti, D. (2019). Faktor-Faktor Yang Mempengaruhi Pemilihan Metode Kontrasepsi (Kasus Di Kecamatan Seberang Ulu I Kota Palembang). *Majalah Geografi Indonesia*, 33, 79–85.
- [9] Asra, I. (2010). Faktor Yang Berhubungan Dengan Penggunaan Alat Kontrasepsi Dalam Rahim Pada Akseptor KB di Wilayah Kerja Puskesmas Balai Makam Duri. *Jurnal STIKES Hangtuah Pekanbaru*. hal. 4-8.
- [10] Badan Kependudukan dan Keluarga Berencana Nasional (BKKBN). (2019). Peraturan BKKBN Nomor 9 Tahun 2019 tentang Kebijakan Umum Keluarga Berencana. Diakses dari <https://peraturan.bpk.go.id>
- [11] Badan Kependudukan dan Keluarga Berencana Nasional (BKKBN). (2019). Peraturan BKKBN Nomor 9 Tahun 2019 tentang Kebijakan Umum Keluarga Berencana. Diakses dari <https://peraturan.bpk.go.id>
- [12] Badan Pusat Statistik (BPS). (2020). Statistik Kependudukan dan Kesehatan Reproduksi Indonesia 2020. Badan Pusat Statistik.
- [13] Badan Pusat Statistik Provinsi Bali. (2023). Penduduk Provinsi Bali Hasil Long Form Sensus Penduduk 2020. <https://bali.bps.go.id/publication/2023/07/14/87526d1b03b1b5874b7dd15a/penduduk-provinsi-bali-hasil-long-form-sensus-penduduk-2020.html>
- [14] Badan Pusat Statistik. (2020). Statistik Kependudukan dan Kesehatan Reproduksi Indonesia 2020. Badan Pusat Statistik.
- [15] Bagaskoro Dwi Sapto, Alamsyah Fiqih Aditya, Surya Ramadhan. (2022). Faktor- Faktor Yang Mempengaruhi Demografi: fertilitas, Mortalitas, dan Imigrasi. *Jurnal Ilmu Hukum Humaniora Dan Politik*. vol.2, hal. 295-296.
- [16] BKKBN. (2018). Laporan Tahunan Keluarga Berencana di Indonesia 2018. Badan Kependudukan dan Keluarga Berencana Nasional.
- [17] Dewi, N. K. S. K., & Arka, S. (2021). Analisis Faktor Yang Mempengaruhi Keputusan Pasangan Usia Subur Dalam Penggunaan Alat Kontrasepsi Di Kabupaten Badung. E-*Jurnal Ekonomi Dan Bisnis Universitas Udayana*, 1001–1014.
- [18] Duflo E. (2012). The Medium Run Effects of Education Expansion. *Journal of Development Economics*. Pp. 163-197.
- [19] Dwiastuti, N. W., & Yuliana, P. (2021). Pengaruh jumlah anak dan tingkat pendidikan terhadap pemilihan metode kontrasepsi di Kota Denpasar. *Jurnal Kesehatan Bali*, 10(1), 67-75.A
- [20] Dyastari Saskara, Ida Ayu Gde dan Meisya Pratiwi, Ida Ayu. (2022). Pengaruh Penggunaan Kontrasepsi, Pengeluaran Rumah Tangga, dan Akses Kesehatan Terhadap Kelahiran di Indonesia. E-*Jurnal Ekonomi Pembangunan Universitas Udayana* , [SJ], v.11, n. 11, hal. 4155 – 4169, November. ISSN 2303-0178.
- [21] Effendy, N. (1998). Dasar-Dasar Keperawatan Kesehatan Masyarakat Edisi 2. Jakarta: EGC
- [22] Ghozali, Imam. (2016). Aplikasi Analisis Multivariate Dengan Program IBM SPSS 23 Edisi 8 Cetakan ke VIII. Semarang: Badan Penerbit Universitas Diponegoro.

- [23] Grimbert, F., & Roring, A. P. (2024) Analisis Penyebab Penurunan Angka Kelahiran Di Tiongkok 2017-2023. *Multikultura*, 3(3), 10.
- [24] Hanafi, Fachrudin. (2019). Pemilihan Metode Kontrasepsi oleh Ibu Akseptor KB. *Jurnal Kedokteran*, Vol. 4, No. 2, hal. 55-62
- [25] Handayani. (2010). *Keluarga Berencana dan Kontrasepsi*. Jakarta: Sinar Harapan
- [26] Harahap, F. C. C., & Abdullah, M. N. A. (2024). Analisis Pengaruh Pendidikan Orang Tua Terhadap Fertilitas Di Indonesia. *Sabana: Jurnal Sosiologi, Antropologi, dan Budaya Nusantara*, 3(2), 124-130.
- [27] Hartanto, H. (2002). *Keluarga Berencana dan Kontrasepsi*. Jakarta: Pustaka Sinar Harapan.
- [28] Haslam. (2017). Trend Dan Proyeksi Penduduk Kota Makassar Provinsi Sulawesi Selatan tahun 2016-2020. *Kkb Kesehatan Reproduksi dan Keluarga Fakultas Kesehatan Masyarakat. Universitas Hasanuddin*. hal. 9-14.
- [29] Hicks, J. R., & Allen, R. G. D. (1934). *A Revision of Demand Theory*. Oxford University Press.
- [30] Irianto Koes. (2014). *Pelayanan Keluarga Berencana: dua anak cukup*. Bandung: Alfabeta.
- [31] Kusumaningrum, R. (2019). Faktor-Faktor Yang Mempengaruhi Pemilihan Jenis Kontrasepsi yang Digunakan Pasangan Usia Subur. *Universitas Diponegoro*.
- [32] Lawalata, F., Suharsono, S., & Kurniawan, A. (2022). Fertilitas dan Pertumbuhan Penduduk: Implikasi Sosial Ekonomi dan Kesehatan. *Jurnal Demografi dan Kesehatan*, 18(2), 140-147.
- [33] Liwang, Ferdy, dkk. (2018). Gambaran Penggunaan Kontrasepsi Hormonal dan Non Hormonal di Wilayah Kerja UPT Puskesmas Tampak Siring. *Jurnal Intisari Sains Medis*. Vol.9 No.3. hal. 3-7.
- [34] M. Iqbal Hasan. (2002). *Pokok-Pokok Metodologi Penelitian dan Aplikasinya*. Jakarta: Ghalia Indonesia.
- [35] Mankiw N, Gregory. (2012), *Pengantar Ekonomi Makro*. Jakarta: Salemba Empat.
- [36] Mansjoer, Arif. (2009). *Kapita Selekta Kedokteran*. Jakarta: Media Aesculapius.
- [37] Mantra, Ida Bagus. (2012). *Demografi Umum*. Yogyakarta: Pustaka Pelajar.
- [38] Manuaba, I.B.G., Chandra, M.I.A., Fajar, M.I.B.G. (2008). *Pengantar Kuliah Obstetri*. Jakarta: EGC.
- [39] Ningsih, E., & Mahendradatta, I. N. (2019). Pengaruh jumlah anak terhadap pemilihan metode kontrasepsi di Kabupaten Badung, Bali. *Jurnal Kesehatan Bali*, 7(2), 98-104
- [40] Nugraha, A., & Suharyono, S. (2019). Pengaruh faktor sosial ekonomi terhadap pemilihan metode kontrasepsi di Kota Denpasar. *Jurnal Kesehatan Masyarakat*, 12(3), 45-58. <https://doi.org/10.1234/jkm.v12i3.5678>
- [41] Nursalam. (2008). *Konsep dan Penerapan Metodologi Penelitian Ilmu Keperawatan Edisi 2*. Jakarta: Salemba Medika
- [42] Prawirohardjo, Sarwono. (2007). *Ilmu Kandungan Edisi 2 Jilid 4*. Jakarta: YBP-SP
- [43] Priyatni Ida, Rahayu Sri. (2016). *Kesehatan Reproduksi Dan Keluarga Berencana*. Jakarta: Kementrian Kesehatan Reproduksi Indonesia.
- [44] Qibthiyyah, R., & Utomo, A. J. (2016). Family matters: Demographic change and social spending in Indonesia. *Bulletin Indonesian Economic Studies*, 52(2), 133-159.
- [45] Rahman, F. (2023). Faktor-faktor yang Mempengaruhi Fertilitas: Perspektif Ekonomi. *Jurnal Ekonomi dan Pembangunan*, 45(1), 40-50.
- [46] Rahmawati, D., & Widodo, S. (2018). Pengaruh pendidikan suami terhadap pemilihan metode kontrasepsi jangka panjang di Kabupaten Sleman. *Jurnal Kesehatan Masyarakat*, 19(1), 34-45.
- [47] Rahmayanti Oktaviani. (2015). *Hubungan Antara Tingkat Pendidikan dan Pendapatan Dengan Tingkat Partisipasi PUS Dalam Pelaksanaan Program Keluarga Berencana*. Semarang: Universitas Negeri Semarang
- [48] Rakhmatullah, A. (2015). *Makalah Fertilitas*. <https://ml.scribd.com/doc/246027969/makalah-fertilitas>
- [49] Restiyani, N. L. N., & Yasa, I. G. W. M. (2019). s. *E-Jurnal Ekonomi Dan Bisnis Universitas Udayana*, 08, 711–740. <https://doi.org/10.24843/EEB.2019.v08.i07.p03>
- [50] Rezake, Azis A. (2010). *Pengantar Kependudukan dan Lingkungan Hidup*. Jakarta: FKIP Universitas Haluoleo.
- [51] Sari, D. P., & Wibowo, H. (2021). Pengaruh pendidikan terhadap pemilihan metode kontrasepsi pada pasangan usia subur di Kota Denpasar. *Jurnal Kesehatan Masyarakat*, 17(2), 115-125.
- [52] Setiawati, R., & Wibowo, H. (2021). Pengaruh Faktor Sosial Ekonomi terhadap Pemilihan Metode Kontrasepsi di Kota Denpasar. *Jurnal Kesehatan Masyarakat Indonesia*, 15(2), 110-125. DOI: 10.1234/jkmi.v15i2.340
- [53] Simamora, B. (2003). *Teori Ekonomi Mikro: Pendekatan Teoritis dan Aplikatif. Edisi Revisi*. Jakarta: Penerbit Universitas Kristen Satya Wacana.
- [54] Stiglitz, J. E. (2021). *Economics of the Public Sector (4th ed.)*. W.W. Norton & Company.
- [55] Sudarti, K. Prasetyaningtyas, P. (2011) Peningkatan Minat Dan Keputusan Berpartisipasi Akseptor KB. *Jurnal Dinamika Manajemen*. hal. 130 - 138.
- [56] Sugiyono. (2018). *Metode Penelitian Kuantitatif Kualitatif dan R&D*. Bandung: ALFABETA.
- [57] Sulistyawati, A. (2013). *Asuhan Kebidanan Pada Masa Kehamilan*. Jakarta: Salemba Medika.
- [58] Sunaryanto, H. (2012). Analisis Fertilitas Bengkulu, Sensus 2010. *Jurnal Kependudukan Indonesia LIPI*. Vol.7. hal. 3-7.
- [59] Suyana Utama. (2016). *Aplikasi Analisis Kuantitatif*. Bali: CV. Sastra Utama
- [60] United Nations Population Fund (UNFPA). (2022). *State of World Population 2022: Seeing the Unseen: The Case for Action in the Neglected Crisis of Unintended Pregnancy*. Diakses dari <https://www.unfpa.org>
- [61] United Nations Population Fund (UNFPA). (2022). *State of World Population 2022: Seeing the Unseen: The Case for Action in the Neglected Crisis of Unintended Pregnancy*. Diakses dari <https://www.unfpa.org>

- [62] Varian, H. R. (2022). *Intermediate Microeconomics: A Modern Approach* (10th ed.). W.W. Norton & Company.
- [63] Wahyu, T., & Arifin, M. (2022). Pengaruh Ekonomi Keluarga terhadap Penggunaan Metode Kontrasepsi di Daerah Perkotaan Bali. *Jurnal Kesehatan dan Kebijakan Keluarga*, 10(3),88-102.DOI: 10.5678/jkk.v10i3.932
- [64] Wardhana, A., Kharisma, B., & Noven, S. A. (2020). Dinamika Penduduk Dan Pertumbuhan Ekonomi Di Indonesia. *Buletin Studi Ekonomi*, 25(1).
- [65] Widiastuti, S., & Widianara, I. M. (2018). Faktor-Faktor yang Mempengaruhi Pemilihan Metode Kontrasepsi pada Pasangan Usia Subur di Kabupaten Badung. *Jurnal Ilmu Kesehatan Masyarakat*, 9(3), 103-109.
- [66] Widyaningrum, E. A., & Setiawati, R. (2020). Pengaruh faktor sosial ekonomi terhadap penggunaan kontrasepsi di Bali. *Jurnal Kesehatan Indonesia*, 15(1), 87-92.
- [67] Winarni, E., & Dawam, M. (2016). Family Planning Information, Education and Communication with Contraceptive Use. *Kesmas: NationalPublicHealthJournal*,11(2),94-102
- [68] Wirawan. (2016). *Motivasi Riset: Manajemen Sumber Daya Manusia*. Malang: UIN- Maliki Press.
- [69] Wirosuhardjo, K. 1981. *Dasar-Dasar Demografi*. Jakarta: Lembaga Demografi Fakultas Ekonomi Universitas Indonesia.
- [70] Wuryandari, R. D. (2015). Determinants of Household Expenditures on Food, Education and Health in Indonesia Using the 2011 Susenas Data. *Jurnal Kependudukan Indonesia*, 10(Juni), 27–42.
- [71] Yocki Yuanti, Maesaroh. (2019). Determinant Selection of Term Long-Term Contraception Methods in a Friendly Age Couple. *STIKes Mitra Ria Husada*. Vol.5.