



## **Determinants of KB duration and desired number of children among women of reproductive age in Banjarangkan District, Klungkung Regency**

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### **ARTICLE HISTORY**

Received May 02, 2024. Accepted June 18, 2024. DOI:10.55942/pssj.v4i6.313

### **ABSTRACT**

This study aims to: 1) Analyze the influence of women's employment status, sex preference, the Governor's instruction on Bali's Krama Bali family planning (KB) program, and women's education on the KB duration of women of reproductive age; 2) Analyze the influence of women's employment status, sex preference, the Governor's instruction on Bali's Krama Bali family planning program, women's education, and KB duration on the desired number of children among women of reproductive age; 3) Analyze the indirect influence of women's employment status, sex preference, the Governor's instruction on the Krama Bali family planning program, and women's education on the desired number of children through KB duration among women of reproductive age. This research utilizes a quantitative method with an associative approach. The sample size is 99 respondents, consisting of women of reproductive age, selected using Snowball Sampling and Accidental Sampling techniques. Data collection was carried out through observation, structured interviews, and in-depth interviews. Path analysis was employed for data analysis. The results of the study indicate: 1) Women of reproductive age who are employed have longer contraceptive use compared to those who are unemployed in Banjarangkan District, Klungkung Regency; 2) Women's education has a significantly positive impact on KB duration among women of reproductive age in Banjarangkan District, Klungkung Regency; 3) Sex preference and the Governor's instruction on the Krama Bali family planning program have a significantly negative impact on KB duration among women of reproductive age in Banjarangkan District, Klungkung Regency; 4) Employed women of reproductive age desire fewer children compared to those who are unemployed in Banjarangkan District, Klungkung Regency; 5) Women's education and KB duration have a significantly negative impact on the desired number of children among women of reproductive age in Banjarangkan District, Klungkung Regency; 6) Sex preference and the Governor's instruction on the Krama Bali family planning program have a positive impact on the desired number of children among women of reproductive age in Banjarangkan District, Klungkung Regency; 7) Women's employment status, sex preference, the Governor's instruction on the Krama Bali family planning program, and women's education influence the desired number of children among women of reproductive age through KB duration in Banjarangkan District, Klungkung Regency.

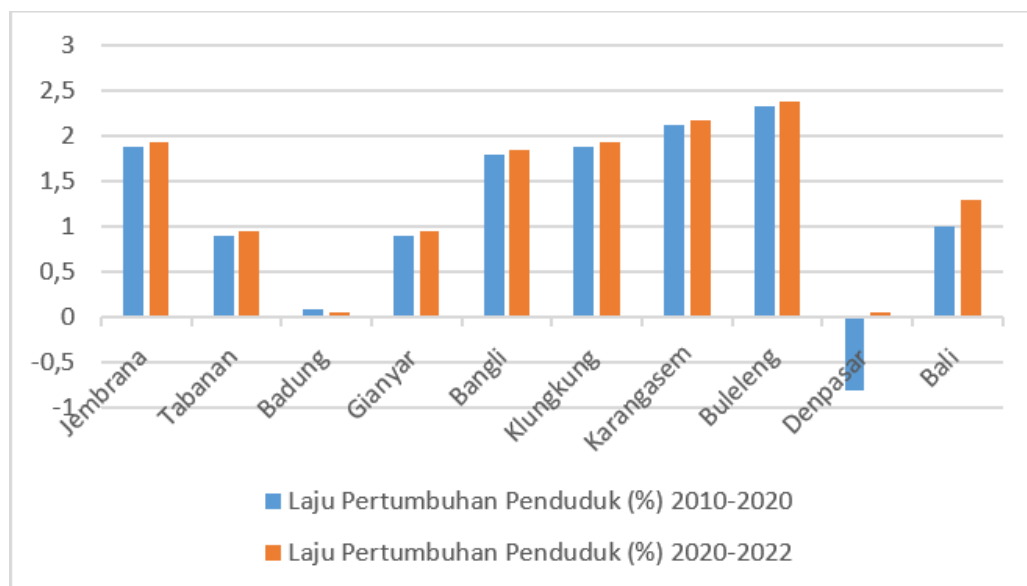
### **KEYWORDS**

women's employment status; sex preference; Governor's instruction on Bali's Krama Bali family planning (KB) program; KB duration; desired number of children

## 1. Introduction

Population is a crucial factor in national economic development, particularly for developing countries. Population growth can be influenced by three factors: birth (fertility), death (mortality), and population movement (migration). These factors directly impact the increase or decrease in population numbers (Ainy et al., 2020). Indonesia's population growth is considered dense. Rapid population growth can have two opposing effects on a country. On one hand, it can be a significant strength for a nation, but on the other hand, high population growth can increase the country's burden, leading to decreased welfare levels, poverty, unemployment, and various other social issues (Mukrimaa et al., 2021).

In the last ten years (2010-2020), the population growth rate in Bali Province has increased, averaging 1.01 percent per year. In 2022, the population growth rate rose by 0.28 points compared to the 2010-2021 period, reaching 1.29 percent per year. The population has also increased from around 4,317,300 in 2010 to 4,415,000 in 2022 (Bali Central Statistics Agency, 2023). Klungkung Regency ranks among the top three regions with the highest population growth rates in Bali Province, at 1.94 percent per year in 2022. Klungkung Regency's population growth rate is categorized as high, exceeding 2 percent, specifically 5 percent (Dr. Vladimir, 2020).



**Figure 1. Population Growth Rates of Regencies and Cities in Bali Province, 2010-2020 and 2020-2022**

*Source: Bali Central Statistics Agency, 2020*

Fertility is defined as the occurrence of live births from a woman, termed as live birth. Live birth refers to the birth of a baby from a woman's womb with signs of life (Bps, 2022). Birth is one of the main causes of high population growth rates in Klungkung Regency. BPS states that Bali Province has not yet reached the ideal national TFR (Total Fertility Rate), which is 2.1. Klungkung Regency is among the top three contributors to the highest TFR in Bali Province. The fertility rate in a region is influenced by closely related social and economic conditions (Jumliadi, 2020).

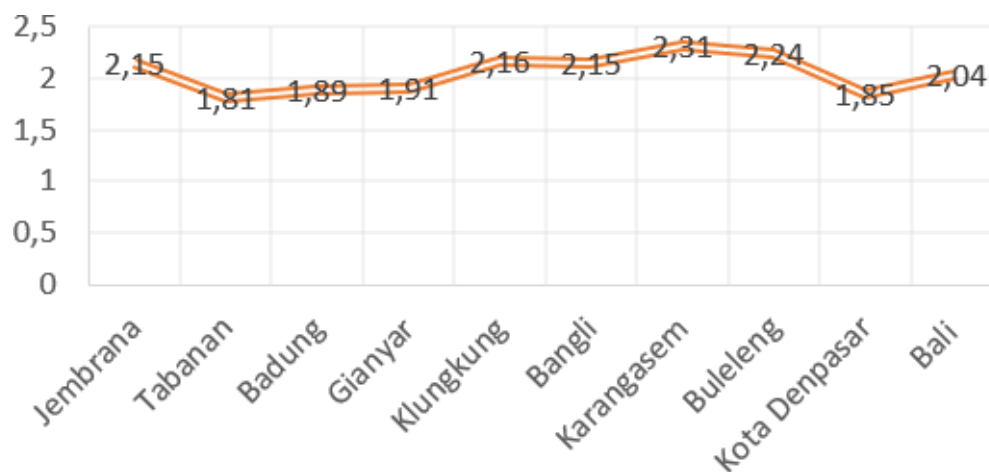


Figure 2. Total Fertility Rate of Regencies/Cities in Bali Province

Source: Central Statistics Agency, 2020

Klungkung Regency has a birth rate of 11.4196, measured from the Crude Birth Rate (CBR). CBR is the number of live births per 1,000 people in a specific year (Bps, 2023). Banjarangkan District is the second largest contributor to births in Klungkung Regency, measured by CBR, reaching 11.4335. The first place is occupied by Nusa Penida District, with a CBR of 12.3932. Compared to Klungkung Regency's overall CBR, Banjarangkan District's CBR is higher.

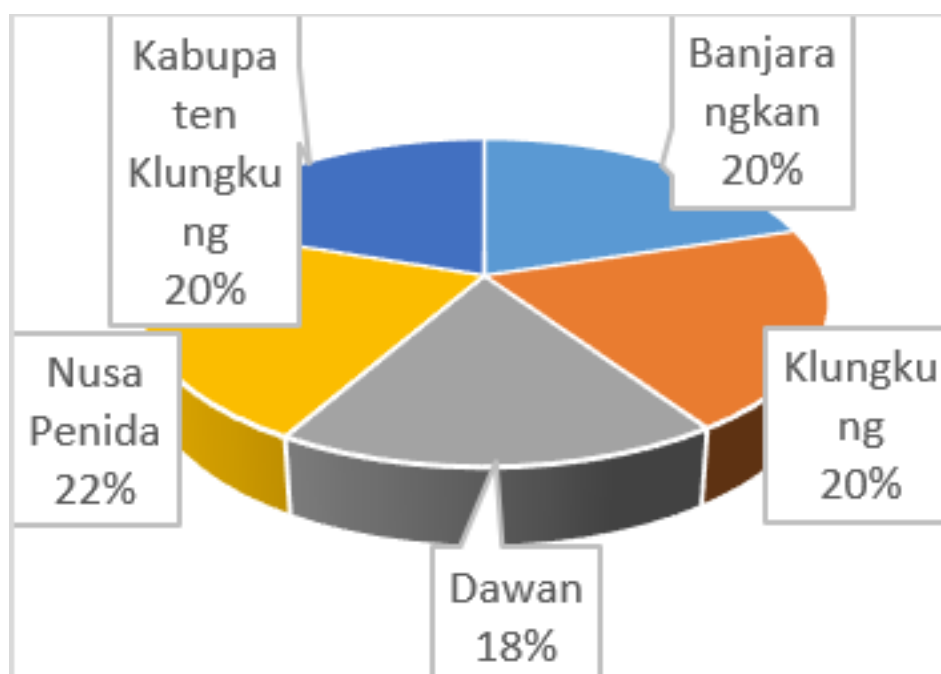


Figure 3. CBR of Districts in Klungkung Regency

*Source: Processed Secondary Data, 2024*

Davis and Blake state that there are 11 intermediate variables affecting fertility (Ariwangga, Susilo, Deffinika, & Soelistijo, 2022). These intermediate variables, summarized by Bongaarts into four factors, are marriage, contraception, breastfeeding, and abortion (Listyaningsih & Satiti, 2022). J. Bongaarts explains that the duration of contraceptive use plays a role in determining the number of children born (Arsyad, Nugroho, & Nugraha, 2022). John S. Mill states that in certain conditions, the population can influence demographics, as women with high productivity tend to use contraception and have fewer children (Odusina et al., 2020). Education levels also have a close relationship with attitudes, social status in society, and perspectives on determining the number of children in a family, especially in viewing children as production, consumption, or future security and investment (Marhaeni, Sudibia, Andika, & Fahlevi, 2024). Women with higher education tend to choose contraception and delay having more children, prioritizing labor market opportunities (Kim, 2023; Mubeen, Shahid, & Hye, 2022; Prayogi & Sudibia, 2022). The Woman's Studies Encyclopedia defines gender as a cultural concept differentiating roles, behavior, mentality, and emotional characteristics between men and women (Coutinho & Golgher, 2018). Gender preference, or sex preference, arises from gender norms (Mukrimaa et al., 2021). Sex preference positively influences the demand for children. If the desired child's gender is not achieved, there is a tendency to have more children (Rayhan & Zaini, 2023).

In June 2019, through Bali Governor Instruction No. 1545, Governor I Wayan Koster instructed regents and mayors across Bali Province to campaign for the Krama Bali family planning (KB) program (Ayu, Widiati, Hukum, & Warmadewa, 2022). The Krama Bali family planning program encourages families to have four children, naming each child based on Balinese cultural names: the first child "Wayan/Putu," the second "Made/Kadek," the third "Nyoman/Komang," and the fourth "Ketut" (Marhaeni et al., 2023). This instruction aims to increase birth rates as a solution to the threat of marginalization of Balinese people due to the influx of migrants. The policy is considered a "demographic alert" stance, addressing the perceived threat of migrant cultures to valuable heritage and naming traditions. The Krama Bali family planning program is seen as a solution to ensure "Bali controlled by Balinese people" (Diah, Pertiwi, Nugroho, & Kamajaya, 2023). However, the Bali Governor's instruction has not been fully implemented by Balinese society due to several factors, including economic conditions, education, socio-cultural aspects, and health concerns (Marhaeni et al., 2023). Third and subsequent pregnancies carry risks for maternal mortality and infant health (Rai, Wahyu, Erawan, Agung, & Mirah, 2019).

This study aims to: 1) Analyze the influence of women's employment status, sex preference, the Governor's instruction on Bali's Krama Bali family planning program, and women's education on the KB duration of women of reproductive age in Banjarangkan District, Klungkung Regency; 2) Analyze the influence of women's employment status, sex preference, the Governor's instruction on Bali's Krama Bali family planning program, women's education, and KB duration on the desired number of children among women of reproductive age in Banjarangkan District, Klungkung Regency; 3) Analyze the mediating role of KB duration in the influence of women's employment status, sex preference, the Governor's instruction on the Krama Bali family planning program, and women's education on the desired number of children among women of reproductive age in Banjarangkan District, Klungkung Regency.

## 2. Research Method

The approach used in this research is quantitative and associative, with the research location in Banjarangkan District, Klungkung Regency (Marhaeni, Yasa, & Fahlevi, 2022). The objects of this study include the desired number of children (Y2), measured in individuals (ratio scale), Family Planning (FP) status (Y1) expressed in terms of the duration (in months) that women of reproductive age have been FP acceptors (ratio scale), women's employment status (X1) measured using a dummy variable (1 = working, 0 = not working), sex preference (X2), the Governor's instruction on Bali's Krama Bali family planning program (X3) measured on an ordinal scale (1 = Strongly disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly agree), and women's education (X4) measured in years (ratio scale).

The data used in this research is quantitative. Data collection methods include observation, structured interviews, and in-depth interviews. The population of the study comprises 6,591 women, and using Slovin's formula, a sample of 99 respondents was obtained. The sampling technique used is non-probability sampling, which does not provide equal opportunities for all population members to be selected as samples. The sample technique used is a combination of accidental sampling and snowball sampling (Marhaeni & Yuliarmi, 2019). The data analysis technique employed is path analysis, including direct influence testing and the Sobel test. The equations used are as follows:

$$Y1 = a + \beta_1 X1 + \beta_2 X2 + \beta_3 X3 + \beta_4 X4 + e1$$

$$Y2 = a + \beta_5 X1 + \beta_6 X2 + \beta_7 X3 + \beta_8 X4 + \beta_9 Y1 + e2$$

### Explanation:

- Y1 = KB duration
- Y2 = Desired Number of Children
- X1 = Women's Employment Status
- X2 = Sex Preference
- X3 = Governor's Instruction on Bali's Krama Bali Family Planning
- X4 = Women's Education
- e1, e2 = Error

## 3. Results and Discussion

### 3.1. Distribution of Respondents

*Source: Processed Primary Data, 2024*

From Figure 4, it is known that the average women of reproductive age who responded to the survey choose to work, accounting for 59.6 percent of the respondents. The remaining 40.4 percent of respondents stated their current status as unemployed.

Table 1 shows five indicators representing sex preference in Banjarangkan District. A total of 74.7 percent of respondents have a strong perception of the child's gender. This is based on respondents' considerations in determining the child's gender. Most respondents strive to have male children. A significant portion of respondents also strive to have female children. Most respondents will continue to strive for the desired gender. A total of 75.8 percent of respondents have a stronger perception of male children than female children. This variable underwent factor analysis to obtain a representative value for the five responses in regression analysis.

Table 2 illustrates four indicators of the Governor's instruction on the Krama Bali



**Figure 4. Distribution of Respondents by Women's Employment Status**

**Table 1. Distribution of Respondents by Sex Preference**

Statement	STS (%)	TS (%)	CS (%)	S (%)	SS (%)	Total (%)
I have a strong perception of the gender of the child (P1)	4.0	21.2	17.2	23.2	34.3	100
I will strive to have a male child (P2)	4.0	15.2	15.2	27.3	38.4	100
I will strive to have a female child (P3)	8.1	31.3	27.3	23.2	10.1	100
I will continue to strive to have the desired gender (P4)	5.1	21.2	15.2	22.2	36.4	100
I have a stronger perception of male children than female children (P5)	6.1	18.2	31.3	27.3	17.2	100

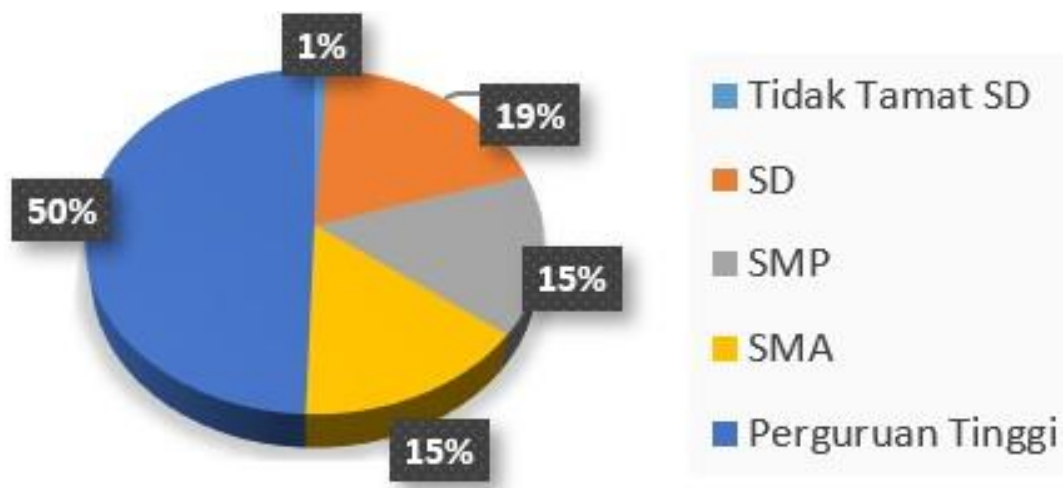
Source: Processed Primary Data, 2024

**Table 2. Distribution of Respondents by the Governor's Instruction on Bali's Krama Bali Family Planning**

Question	STS (%)	TS (%)	C (%)	S (%)	SS (%)	Total (%)
I am aware of the Governor's Instruction on Bali's Krama Bali Family Planning	0	3.0	31.3	31.3	34.3	100
I support the Governor's Instruction on Bali's Krama Bali Family Planning	2.0	37.4	28.3	3.0	29.3	100
I will increase the number of children according to the Governor's Instruction on Bali's Krama Bali Family Planning	22.2	40.4	6.1	3.0	28.3	100
I have planned births, spacing, and ideal age for giving birth to comply with the Governor's Instruction on Bali's Krama Bali Family Planning	23.2	41.4	5.1	2.0	28.3	100

Source: Processed Primary Data, 2024

family planning program. A total of 96.9 percent of respondents are aware of the Governor's instruction. 60.6 percent of respondents support the instruction, motivated by a desire to preserve Balinese culture through traditional naming conventions (Wayan/Putu, Made/Kadek, Komang/Nyoman, and Ketut). However, most respondents disagree with increasing the number of children as instructed. Some respondents do not agree with planning births, spacing, and ideal age for birth as per the Governor's instruction, instead focusing on minimizing birth risks rather than following Instruction No. 1545 of 2019. This variable underwent factor analysis to obtain a representative value for the four responses in regression analysis.



**Figure 5. Distribution of Respondents by Women's Education**

Based on Figure 5, it is evident that higher education levels are the most common among respondents, with 49.5 percent achieving this level. 49.6 percent of respondents have education below the college level.



**Figure 6. Distribution of Variables by KB duration**

*Source: Processed Primary Data, 2024*

Figure 6 explains that 14.1 percent of respondents have never used contraception, predominantly those aged 23-34 years from newly married couples. The longest duration of contraceptive use is dominated by the 36-44 age group, as women aged 35-44 decide to stop and limit births.

4. Discussion

4.1. Validity Test Results

Table 3. Validity Test Results

No.	Variable	Pearson Correlation	Conclusion
1.	Sex Preference (X2)	0.874	Valid
		0.798	Valid
		0.775	Valid
		0.871	Valid
2.	Governor’s Instruction on Family Planning Krama Bali (X3)	0.054	Valid
		0.737	Valid
		0.924	Valid
		0.963	Valid
Source: Processed Primary Data, 2024		0.97	Valid

Validity is the degree or extent to which the accuracy and precision of research data match the data reported by the researcher. Table 3 presents the indicator testing within the latent variables. A variable is declared valid if the Pearson correlation value is greater than 0.3. Therefore, the latent variables in this study are valid, as the Pearson correlation values are all greater than 0.3.

4.2. Reliability Test Results

Reliability testing is conducted to determine the consistency of measurement results. A variable is considered reliable if the Cronbach’s alpha value is greater than 0.6. Table 4 shows the Cronbach’s alpha values for the variables Sex Preference (0.891) and Governor’s Instruction on Family Planning Krama Bali (0.923), indicating that both variables are reliable.

Table 4. Reliability Test Results

No.	Variable	Cronbach’s Alpha	Conclusion
1.	Sex Preference (X2)	0.891	Reliable
2.	Governor’s Instruction on Family Planning Krama Bali (X3)	0.923	Reliable
Source: Processed Primary Data, 2024			

4.3. Model Feasibility Test Results

Table 5. Model Feasibility Test Results for Substructure 1

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	168386.773	4	42096.693	93.163	.000b
Residual	42474.884	94	451.860		
Total	210861.657	98			
Source: Processed Primary Data, 2024					

Dependent Variable: KB duration



b. Predictors: (Constant), Women's Education, Sex Preference, Governor's Instruction on Family Planning Krama Bali, Women's Employment Status

shows a significance value of 0.000, which is smaller than  $\alpha = 0.05$ , indicating that the model used in this study is feasible. This result means that Women's Employment Status, Sex Preference, Governor's Instruction on Family Planning Krama Bali, and Women's Education can predict or explain the KB duration. This means that the model in structure 1 can be used for further analysis or, in other words, can be used for projection.

**Table 6. odel Feasibility Test Results for Substructure 2**

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	90.714	5	18.143	104.185	.000b
Residual	16.195	93	0.174		
Total	106.909	98			

Source: Processed Primary Data, 2024

Dependent Variable: Desired Number of Children

Predictors: (Constant), KB duration, Sex Preference, Employment Status, Governor's Instruction on Family Planning Krama Bali, Women's Education

Table 6 shows a significance value of 0.000, which is smaller than  $\alpha = 0.05$ , indicating that the model used in this study is feasible. This result means that Employment Status, Sex Preference, Governor's Instruction on Family Planning Krama Bali, Women's Education, and KB duration can predict or explain the desired number of children. This means that the model in structure 2 can be used for further analysis or, in other words, can be used for projection.

#### 4.4. Descriptive Analysis Results

**Table 7. Descriptive Analysis Results**

N	Minimum	Maximum	Mean	Std. Deviation
X4 Women's Education	99	5	18	11.81
Y1 KB duration	99	0	180	67.23
Y2 Desired Number of Children	99	1	4	2.70
Valid N (listwise)	99			

Source: Processed Primary Data, 2024

Based on Table 7, from the 99 samples, the desired number of children (Y2) has a minimum value of 1, a maximum value of 4, a mean of 2.70, and a standard deviation of 1.044. This indicates that the mean is larger than the standard deviation, suggesting that the data is less varied. The KB duration (Y2) variable has a minimum value of 0, a maximum value of 180, a mean of 67.23, and a standard deviation of 46.386. The average duration of contraceptive use in Banjarangkan District is sixty-seven months. The mean value of 67.23 being larger than the standard deviation of 46.368 also indicates that the data is less varied.

The Women's Education (X4) variable has a minimum value of 5, a maximum value of 18, a mean of 11.81, and a standard deviation of 3.784. This indicates that there are women of reproductive age who did not complete elementary school, while others have high educational levels up to higher education. The mean value of 11.81 indicates that the average education level attained by women of reproductive age in Banjarangkan District is high school.

#### 4.5. *Direct Influence of Women's Employment Status, Sex Preference, Governor's Instruction on Family Planning Krama Bali, and Women's Education on KB duration among Women of Reproductive Age in Banjarangkan District, Klungkung Regency*

As per the first research objective, the direct influence test was conducted to determine the influence of Women's Employment Status, Sex Preference, Governor's Instruction on Family Planning Krama Bali, and Women's Education on KB duration among Women of Reproductive Age in Banjarangkan District, Klungkung Regency.

**Table 8. Direct Influence Test Results of Women's Employment Status, Sex Preference, Governor's Instruction on Family Planning Krama Bali, and Women's Education on KB duration among Women of Reproductive Age in Banjarangkan District, Klungkung Regency**

Model	Unstandardized Coefficients	Standardized Coefficients	t	Sig.
1 (Constant)	B 14.900	Std. Error 12.224	Beta	1.219
X1 Employment Status	22.872	8.243	0.243	2.775
X2 Sex Preference	-10.211	2.673	-	-
X3 Family Planning Krama Bali	-13.824	3.973	0.220	3.820
X4 Education	3.278	1.211	-	-
Source: Processed Primary Data, 2024			0.298	3.479
			0.267	2.706

The Women's Employment Status variable has a t-value of 2.775 with a significance value of  $0.007 < 0.05$ , indicating that respondents who work use family planning for a longer period than those who do not work in Banjarangkan District, Klungkung Regency. According to the first research objective, there is a difference in the desired number of children between dummy variable 1 (employed women) and dummy variable 0 (unemployed women). The results show that employed women use contraceptives for a longer period than unemployed women. Working women tend to use contraceptives to limit births due to time constraints in childcare. This is consistent with the research conducted by Khan, Qureshi, Daniyal, and Tawiah (2022).

The calculation results for the Sex Preference variable show a t-value of -3.820 with a significance value of  $0.000 < 0.05$ , indicating that Sex Preference has a negative and significant effect on KB duration among women of reproductive age in Banjarangkan District, Klungkung Regency. The coefficient value for the Sex Preference variable is -10.211, meaning that if the sex preference level decreases by 10.211, the KB duration will decrease by 10.211, assuming other variables are constant. Having children of the same gender leads to a preference for not using contraceptives, hoping for a different gender in future children (Nandini et al., 2022).

The calculation results for the Governor's Instruction on Family Planning Krama Bali variable show a t-value of -3.479 with a significance value of  $0.001 < 0.05$ , indicating that the Governor's Instruction on Family Planning Krama Bali has a negative and significant effect on KB duration among women of reproductive age in Banjarangkan District, Klungkung Regency. The coefficient value for the Governor's Instruction on Family Planning Krama Bali variable is -13.824, meaning that if the agreement level with the Krama Bali family planning program decreases by 13.824, the KB duration will decrease by 13.824, assuming other variables are constant. Provincial policies that explicitly prioritize cultural values reduce participation in contraceptive use (Titisari, Warren, Reid, & Swandewi, 2022).

The calculation results for the Women's Education variable show a t-value of 2.706 with a significance value of  $0.008 < 0.05$ , indicating that Women's Education has a positive and significant effect on KB duration among women of reproductive age in Banjaringan District, Klungkung Regency. The coefficient value for the Women's Education variable is 3.278, meaning that if the education level increases by one year, the KB duration will increase by 3.278, assuming other variables are constant. Higher education levels increase the tendency to use contraceptives. Educated women have better access to information about contraceptives (Marhaeni et al., 2022).

#### **4.6. Direct Influence of Women's Employment Status, Sex Preference, Governor's Instruction on Family Planning Krama Bali, Women's Education, and KB duration on the Desired Number of Children among Women of Reproductive Age in Banjaringan District, Klungkung Regency**

As per the second research objective, the direct influence test was conducted to determine the influence of Women's Employment Status, Sex Preference, Governor's Instruction on Family Planning Krama Bali, Women's Education, and KB duration on the desired number of children.

**Table 9. Direct Influence Test Results**

Model	Unstandardized Coefficients	Standardized Coefficients	t	Sig.
1 (Constant)	B 4.263	Std. Error 0.242	Beta	17.627
X1 Employment Status	-0.435	0.168	-	-
X2 Sex Preference	0.113	0.056	0.205	2.585
X3 Family Planning Krama Bali	0.172	0.083	0.108	2.001
X4 Education	-0.075	0.025	0.164	2.072
Y1 KB duration	-0.006	0.002	-	-
			0.271	3.033
			-	-
			0.279	3.106

Source: Processed Primary Data, 2024

The calculation results for the Women's Employment Status variable show a t-value of -2.585 with a significance value of  $0.011 < 0.05$ , indicating that employed women of reproductive age desire fewer children compared to unemployed women in Banjaringan District, Klungkung Regency. A study conducted in West Denpasar found that employment status directly negatively affects the number of live births (Andersen & Özcan, 2021). This is because highly productive women tend to desire fewer but higher-quality children to avoid disrupting their work activities. This aligns with Leibenstein's theory, which views children from two aspects: utility and cost. The more children born, the greater the economic burden on the family to meet their needs (Prayogi & Sudibia, 2022).

The calculation results for the Sex Preference variable show a t-value of 2.001 with a significance value of  $0.048 < 0.05$ , indicating that Sex Preference has a positive and significant effect on KB duration among women of reproductive age in Banjaringan District, Klungkung Regency. The coefficient value for the Sex Preference variable is 0.113, meaning that if the sex preference level increases by 0.113, the desired number

of children will increase by 0.113, assuming other variables are constant. (López-Carr, 2023). This result is also supported by J. Bongaart's theory, which states that married couples tend to want children of a certain gender or sex preference. When expressing a preference for a specific family, married couples have a desired gender in mind, such as one boy and one girl (Trisnani, 2020).

The calculation results for the Governor's Instruction on Family Planning Krama Bali variable show a t-value of 2.072 with a significance value of  $0.041 < 0.05$ , indicating that the Governor's Instruction on Family Planning Krama Bali has a positive and significant effect on KB duration among women of reproductive age in Banjarangkan District, Klungkung Regency. The coefficient value for the Governor's Instruction on Family Planning Krama Bali variable is 0.172, meaning that if the agreement level with the Krama Bali family planning program increases by 0.172, the desired number of children will increase by 0.172, assuming other variables are constant. The Health Belief Model Theory states that a person's perception of their health, including childbirth, depends on attitudes and beliefs formed from the information obtained (Marhaeni et al., 2023). Likewise, public perception of the Governor's Instruction. The Governor's Instruction on Family Planning Krama Bali positively affects the number of children born, contributing to the population growth rate in Bali Province, consistent with the research conducted by (Pujaastawa, 2019).

The calculation results for the Women's Education variable show a t-value of -3.033 with a significance value of  $0.003 < 0.05$ , indicating that Women's Education has a negative and significant effect on the desired number of children among women of reproductive age in Banjarangkan District, Klungkung Regency. The coefficient value for the Women's Education variable is -0.075, meaning that if the education level increases by one year, the desired number of children will decrease by 0.075, assuming other variables are constant. The Health Belief Model Theory states that a person's perception is formed from knowledge, including childbirth. Directly, Women's Education can influence a woman's decision to limit births. This aligns with Leibenstein's fertility theory, where highly educated women consider the benefits of having children compared to the costs of raising them (Forty, Navaneetham, & Letamo, 2022).

The calculation results for the KB duration variable show a t-value of -3.106 with a significance value of  $0.003 < 0.05$ , indicating that KB duration has a negative and significant effect on the desired number of children among women of reproductive age in Banjarangkan District, Klungkung Regency. The coefficient value for the KB duration variable is -0.006, meaning that if the duration of Family Planning use increases by one month, the desired number of children will decrease by 0.006, assuming other variables are constant. Family Planning is an effort to regulate the birth of children, spacing, and ideal age for childbirth to achieve a quality family. Couples of reproductive age using Family Planning tend to continue due to the desire to have fewer children (Saskara1 & Pratiwi, 2021).

#### **4.7. Indirect Influence Test Results**

The previous hypothesis testing shows that the calculated Z value of  $-2.03693 < -1.96$  means  $H_0$  is rejected. Thus, KB duration mediates the effect of Women's Employment Status on the desired number of children among women of reproductive age in Banjarangkan District, Klungkung Regency. The previous hypothesis testing shows that the calculated Z value of  $2.359878 > 1.96$  means  $H_0$  is rejected. This indicates that Sex Preference has an indirect effect on the desired number of children through KB

duration among women of reproductive age in Banjarangkan District, Klungkung Regency. The previous hypothesis testing shows that the calculated Z value of  $2.271799 > 1.96$  means  $H_0$  is rejected. This indicates that the Governor's Instruction on Family Planning Krama Bali indirectly affects the desired number of children through KB duration among women of reproductive age in Banjarangkan District, Klungkung Regency. The previous hypothesis testing shows that the calculated Z value of  $-2.00111 < -1.96$  means  $H_0$  is rejected. Thus, Women's Education indirectly affects the desired number of children through KB duration among women of reproductive age in Banjarangkan District, Klungkung Regency. From all the Z test results, it is shown that Women's Employment Status ( $X_1$ ), Sex Preference ( $X_2$ ), Governor's Instruction on Family Planning Krama Bali ( $X_3$ ), and Women's Education ( $X_4$ ) indirectly affect the desired number of children through KB duration. This is reinforced by the theory presented by Davis and Blake, which states that there are 11 intermediate variables that can directly affect fertility, one of which is the duration of contraceptive use (Chemhaka & Odimegwu, 2019) (Shallo & S, 2020).

## 5. Conclusions and Recommendations

Based on the results and discussions previously presented, the study concludes that women of reproductive age who work use contraceptives for a longer period than those who do not work in Banjarangkan District, Klungkung Regency. Women's education significantly positively affects Family Planning (FP) status among women of reproductive age in Banjarangkan District, Klungkung Regency. Conversely, sex preference and the Governor's instruction on Family Planning Krama Bali have a significantly negative effect on FP status among these women. Employed women of reproductive age desire fewer children compared to those who are unemployed in Banjarangkan District, Klungkung Regency. Women's education and FP status have a significantly negative effect on the desired number of children among women of reproductive age in Banjarangkan District, Klungkung Regency. Additionally, sex preference and the Governor's instruction on Family Planning Krama Bali positively affect the desired number of children among these women. Women's employment status, sex preference, the Governor's instruction on Family Planning Krama Bali, and women's education indirectly affect the desired number of children through FP status among women of reproductive age in Banjarangkan District, Klungkung Regency.

Based on the analysis results and conclusions presented, several recommendations are proposed. It is essential to enhance women's education through special scholarships to increase knowledge and change public perceptions regarding the importance of contraceptive use and the regulation of birth spacing and ideal age for childbirth. Minimizing societal views on sex preference by providing direct counseling and socialization on gender equality and family planning programs is crucial. Additionally, optimizing the socialization of the Krama Bali family planning program and encouraging government programs to address socio-economic issues such as poverty and children's education will allow the public to consider implementing the Governor's instruction on Family Planning Krama Bali. For example, improving access to and quality of education and healthcare in Banjarangkan District is essential. Finally, implementing economic empowerment programs such as job training and micro-enterprise development will help achieve these goals.

## References

- Ahmed Shallo, S. (2020). <p>Roles of Proximate Determinants of Fertility in Recent Fertility Decline in Ethiopia: Application of the Revised Bongaarts Model</p>. *Open Access Journal of Contraception*, Volume 11, 33–41. <https://doi.org/10.2147/oajc.s251693>
- Ainy, H., Nurrochmah, S., & Katmawanti, S. (n.d.). *HUBUNGAN ANTARA FERTILITAS, MORTALITAS, DAN MIGRASI DENGAN LAJU PERTUMBUHAN PENDUDUK*. <https://doi.org/http://dx.doi.org/10.17977/umo044v4i1p15-22>
- Andersen, S. H., & Özcan, B. (2021). The effects of unemployment on fertility. *Advances in Life Course Research*, 49. <https://doi.org/10.1016/j.alcr.2020.100401>
- Anjanii, N. K. P., & Marhaeni. (2022). ANALISIS FAKTOR-FAKTOR YANG MEMPENGARUHI LAMA PEMAKAIAN ALAT KONTRASEPSI. *E-Jurnal EP Unud*, 20(1), 105–123.
- Ariwangga, W. A., Susilo, S., Deffinika, I., & Soelistijo, D. (2022). *kawin pertama terhadap fertilitas di Desa Mojokusur Kecamatan Mojosari Kabupaten Mojokerto*. 2(11), 1063–1075. <https://doi.org/10.17977/umo063v2i112022p1063-1075>
- Arsyad, S. S., Nugroho, D. N. A., & Nugraha, A. (2022). Social, Economic, Demographic Factors and Proximate Determinants of Fertility in Papua Province. *Populasi*, 30(1), 61. <https://doi.org/10.22146/jp.75800>
- Ayu, I., Widiati, P., Hukum, F., & Warmadewa, U. (2022). *Implementasi Intruksi Gubernur Bali Tentang Keluarga*. 3(3), 539–544. <https://doi.org/10.55637/jkh.3.3.5344.539-544>
- Badan Pusat Statistik. (2020). *Angka Kelahiran Total (Total Fertility Rate/TFR) Hasil Long Form (LF) SP2020 Menurut Provinsi/Kabupaten/Kota, 2020*. 282.
- Badan Pusat Statistik Bali. (2020). *Laju Pertumbuhan Penduduk Kab/Kota Provinsi Bali*.
- Badan Pusat Statistik Bali. (2023). Hasil Sensus Penduduk 2020 Provinsi Bali. *Www.Bali.Bps.Go.Id*, 08, 1–13.
- BPS. (2022). Pengertian Fertilitas. *BPS*, 1, 1–12. <https://jakarta.bps.go.id/news/2022/12/14/820/apa-itu-fertilitas.html>
- BPS. (2023). *pengertian CBR.pdf*.
- Chemhaka, G. B., & Odimegwu, C. O. (2019). The proximate determinants of fertility in Eswatini. *African Journal of Reproductive Health*, 23(2), 65–75. <https://doi.org/10.29063/ajrh2019/v23i2.7>
- Coutinho, R. Z., & Golgher, A. B. (2018). Modelling the proximate determinants of fertility for Brazil: The advent of competing preferences. *Revista Brasileira de Estudos de Populacao*, 35(1), 1–28. <https://doi.org/10.20947/S0102-3098a0041>
- Diah, P., Pertiwi, W., Nugroho, W. B., & Kamajaya, G. (2023). *Opportunities and Barriers of the Balinese Family Planning Program ( KB Krama Bali ) in Sasetan Village*. 6(8), 184–192.
- Dr. Vladimir, V. F. (2020). Modul : Geografi SMA : Dinamika Kependudukan Di Indonesia. *Gastronomía Ecuatoriana y Turismo Local*, 1(69), 5–24.
- Forty, J., Navaneetham, K., & Letamo, G. (2022). Determinants of fertility in Malawi: Does women autonomy dimension matter? *BMC Women's Health*, 22(1), 1–16. <https://doi.org/10.1186/s12905-022-01926-4>
- Jumliadi, M. (2020). Research Gap Dan Model Faktor Yang Mempengaruhi Tingkat Fertilitas: Suatu Studi Literatur. *JPP (Jurnal Kesehatan Poltekkes Palembang)*, 15(1), 52–60. <https://doi.org/10.36086/jpp.v15i1.467>
- Khan, A., Qureshi, M., Daniyal, M., & Tawiah, K. (2022). Impact of Sociocultural Factors on Contraceptive Use: A Case Study of Pakistan. *BioMed Research International*, 2022. <https://doi.org/10.1155/2022/2939166>
- Kim, J. (2023). Female education and its impact on fertility. *IZA World of Labor*, May, 1–12. <https://doi.org/10.15185/izawol.228.v2>
- Listyaningsih, U., & Satiti, S. (2022). Dinamika fertilitas dan prevalensi kontrasepsi di Indonesia. *Jurnal Kependudukan Indonesia*, 16(2), 153. <https://doi.org/10.14203/jki.v16i2.595>
- López-carr, D. (2023). *Analysis of the Fertility Intention and Influencing Factors of Urban Women of Childbearing Age in Liaoning Province under the “ Three-child ” Policy Background : Methods : Results : Conclusions* : 1–21.
- Marhaeni, A. A. I. N., & Yuliarmi, N. N. (2019). *Metode Riset Jilid 1*. CV. Sastra Utama.

- Marhaeni, A. A. I. N., Yasa, I. G. W. M., & Fahlevi, M. (2022). Gender and age in the language of social media: An easier way to build credibility. *International Journal of Data and Network Science*, 6(1), 209-216.
- Marhaeni, A. A. I. N., Jermisittiparsert, K., Sudarmo, Indrawati, L. R., Prasetyo, A., Fuada, N., ... & Aljuaid, M. (2023). Adoption of the green economy through branchless rural credit banks during the COVID-19 Pandemic in Indonesia. *Sustainability*, 15(3), 2723.
- Marhaeni, A. A. I. N., Sudibia, I. K., Andika, G., & Fahlevi, M. (2024). Impacts of Village Funding on Community Empowerment and Poverty in Klungkung, Bali. *International Journal of Sustainable Development & Planning*, 19(3).
- Mubeen, S., Shahid, M. H., & Hye, Q. M. A. (2022). the Relationship Between the Empowerment of Women and Preferences Related To Fertility in Pakistan. *Journal of Social Economics Research*, 9(2), 121-136. <https://doi.org/10.18488/35.v9i2.3135>
- Mukrimaa, S. S., Nurdyansyah, Fahyuni, E. F., YULIA CITRA, A., Schulz, N. D., د. غسان., Taniredja, T., Faridli, E. M., & Harmianto, S. (2021). Oreferensi Gender dan Ekonomi Kesehatan Di Indonesia. *Jurnal Penelitian Pendidikan Guru Sekolah Dasar*, 6(August), 128.
- Nandini, S., A.B, I., & Susanti, R. (2022). Jumlah Anak Ideal di Provinsi Kalimantan Timur dan Faktor yang mempengaruhinya (Analisis Data SDKI 2017). *Contagion: Scientific Periodical Journal of Public Health and Coastal Health*, 4(1), 1. <https://doi.org/10.30829/contagion.v4i1.11473>
- Odusina, E. K., Ayotunde, T., Kunnuji, M., Ononokpono, D. N., Bishwajit, G., Yaya, S., & Yaya, S. (2020). Fertility preferences among couples in Nigeria: A cross sectional study. *Reproductive Health*, 17(1), 1-9. <https://doi.org/10.1186/s12978-020-00940-9>
- Prayogi, I. W. A., & Sudibia, I. K. (2022). Analisis Faktor-Faktor Yang Mempengaruhi Usia Kawin Pertama Dan Fertilitas Di Kecamatan Negara Kabupaten Jembarana. *E-Jurnal Ekonomi Dan Bisnis Universitas Udayana*, 11(09), 1025. <https://doi.org/10.24843/eeb.2022.v11.i09.p01>
- Pujaastawa, I. B. G. (2019). FAMILY PLANNING PROGRAM WITH FOUR CHILDREN CRITICAL STUDIES ON THE NEW FAMILY PLANNING POLICY OF BALI GOVERNOR. *Fakultas Ilmu Budaya Universitas Udayana*, 1545, 55-60.
- Rai, I. P., Wahyu, S., Erawan, I. K. P., Agung, A., & Mirah, S. (2019). *Praktik Governmentality dan Nativisme dalam Kebijakan Keluarga Berencana Krama Bali*. 1-15.
- Rayhan, M., & Zaini, D. (2023). Ecosains : Jurnal Ilmiah Ekonomi dan Pembangunan Analisis Permintaan Anak pada Wanita Bekerja di Indonesia ( TPAK ) di wilayah tersebut . Indikator TPAK merupakan ukuran utama ketenagakerjaan yang Tabel 1 Data Wanita yang bekerja tahun 2018-2022 di Indones. 12, 12-24.
- Saskara1, I. A. G. D., & Pratiwi, I. A. M. (2021). PENGARUH PENGGUNAAN KONTRASEPSI, PENGELUARAN RUMAH TANGGA, DAN AKSES KESEHATAN TERHADAP KELAHIRAN DI INDONESIA. *E-Jurnal EP Unud*, 1(1), 91-99.
- Semadi, I. K. P., & Marhaeni, A. A. I. N. (2023). DETERMINAN TINGKAT KESETUJUAN PASANGAN USIA SUBUR TERKAIT INSTRUKSI GUBERNUR BALI NOMOR 1545 TAHUN 2019 Provinsi Bali terkenal dengan budaya patriarkinya yang kental . Kedudukan dan peranan laki- istimewa ( Apriani & Karmini , 2021 ). Untuk menghormati ha. 12(10), 1894-1907.
- Titisari, A. S., Warren, C., Reid, A., & Swandewi, L. K. R. (2022). “Do I Have To Choose?” Two Children Vs Four Children in Bali’S Family Planning Program. *Jurnal Biometrika Dan Kependudukan*, 11(1), 98-109. <https://doi.org/10.20473/jbk.v11i1.2022.98-109>
- Trisnani, D. (2020). Ketiadaan Anak Laki-Laki: Akankah Menjadi Faktor Penghalang Pemakaian Kontrasepsi? *Jurnal Kesehatan Kusuma Husada*, 113-124. <https://doi.org/10.34035/jk.v11i2.430>