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Analysis Of Factors Influencing The Use Of Contraception And Fertility Devices In Kubu District, Karangasem District

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Abstract. *The population problem faced by developing countries to date is the birth or fertility rate which is increasing every year. The use of contraceptives is one of the family planning programs implemented by the BKKBN to control fertility levels and suppress population growth. The objectives of this research are 1) To analyze the influence of education level, employment status, patriarchal culture, and family income on the use of contraceptives in Kubu District, Karangasem Regency. 2) To analyze the influence of education level, employment status, patriarchal culture, family income, and use of contraceptives on fertility in Kubu District, Karangasem Regency. 3) To analyze the indirect influence of education level, employment status, patriarchal culture, and family income to Fertility levels through the use of contraceptives in Kubu District, Regency Karangasem. The analysis techniques used in this research are descriptive analysis techniques and path analysis. The data used is primary data totaling 123 samples. The results of this research show that 1) level of education, employment status, and family income have a positive and significant influence on the use of contraceptives in Kubu District, Karangasem Regency. 2) patriarchal culture has a negative and significant effect on the use of contraceptives in Kubu District, Karangasem Regency. 3) education level, employment status, family income and use of contraceptives have a negative and significant effect on fertility in Kubu District, Karangasem Regency. 4) patriarchal culture has a positive and significant influence on fertility in Kubu District, Karangasem Regency. 5) the use of contraceptives has a direct effect in mediating employment status on fertility in Kubu District, Karangasem Regency.*

Keyword : *Population problem, Developing countries, Birth rate*

BACKGROUND OF THE PROBLEM

The population problem faced by developing countries to date is the birth or fertility rate which is increasing every year. In Indonesia, one of the population problems is the large population and the population growth rate which is still high. Population problems can be seen in terms of quantity and quality. In terms of quantity, that is, a large population means problems in the ability to provide clothing, food and shelter. The population problem in terms of quality is seen from the competitiveness of the Indonesian population with other countries in the world. Based on the results of BKKBN records in 2019, the majority provinces in Indonesia have TFR values above 2.45, which means that most of the provinces in country Indonesia still hasn't capable reach population grows in balance. Population growth is considered balanced if the TFR value of the area is at 2.1. Nasir (2012) states that fertility is the main problem in

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population, therefore suppressing the number of births is a solution in controlling population growth (Putri and Yasa (2015). Fertility can be influenced by two factors, the first factor is demographics, such as age, first marriage, length of marriage, and parity. The second factor is non demographics such as the economic condition of the population, education level, women's employment, urbanization and industrialization (Mantra, 2006).

Bali Island is a province located to the east of Java Island and west of Lombok Island. The island of Bali is often called the Island of the Gods or the Island of a Thousand Temples with its natural beauty, culinary delights, diversity of customs and culture which is well known to foreign countries, this makes the island of Bali an attraction for local and foreign tourists. Based on data Body Center Statistics Province Bali, recorded wide region ProvinceBali is 5,780.06 km ^{2} . Bali Province which has eight districts, namely Kabupaten Jembrana, Tabanan, Badung, Gianyar, Klungkung, Bangli, Karangasem, and Buleleng and one city namely City Denpasar. In Census Resident (SP) 2020 recorded that on month September 2020 The population of Bali Province is 4.32 million people. The population in Bali Province has increased by approx 426.65 thousand soul or every the year increase average a number 42.66 thousand soul within 10 years (2010-2020).

Table 1. Occupation Growth Rate Per Year According to Regency/City in Bali Province

Regency/City	1961-1971	1971-1980	1980-1990	1990-2000	2000-2010	2010-2020
Jembrana	2.91	1.77	0.60	0.63	1.22	1.88
Tabanan	1.85	0.44	0.19	0.73	1.13	0.90
Badung	2.60	2.34	1.23	2.33	4.62	0.09
Gianyar	1.58	1.20	0.96	1.56	1.80	0.90
Klungkung	0.87	0.66	0.12	0.31	0.94	1.89
Bangli	1.11	1.56	0.88	0.94	1.06	1.79
Karangasem	0.23	1.63	0.89	0.49	0.96	2.12
Buleleng	2.27	2.90	1.04	0.33	1.12	2.33
Denpasar	-	-	4.05	3.20	4.01	-0.81
BALI	**1.77**	**1.54**	**1.18**	**1.26**	**2.14**	**1.01**

Source: Body

Center Statistics Province Bali 2020

Based on Table 1 can seen rate growth resident The highest for the period 2010 to 2020 was achieved by Buleleng Regency, namely amounting to 2.33 percent. Karangasem Regency was ranked second out of nineRegency/City in Bali Province with a population growth rate of 2.12 percent. Although Regency Karangasem, no is Regency with growth rate resident highest in Province Bali, However number *Child Woman Ratio*(CWR) in Karangasem Regency tall compared to with Regency/City Whichis at in Province Bali.

Total Fertility Rate (TFR) is amount average child Which born bya woman during age fertile ie age 15-49 year. Indicator This used to determine the extent of a country's success in terms of controlling population. Apart from TFR, *Child Women Ratio (CWR)*or Mother Child Ratio can also be used to determine fertility levels in a certain region. Mother Child Ratio is the ratio between the number of children aged under five year in something region on time certain with female population of productive age (15-49 years).

In Table 2 it can be seen that the three districts with the highest CWR values are Karangasem Regency, Buleleng Regency and Bangli Regency. The CWR value or Mother Child Ratio in Buleleng Regency is 302.04, in Bangli Regency it is 299.26 and in Karangasem Regency it is 305.75 in 2021, which is the highest value of the regencies/cities in Bali Province.

Table 2. Ratio Mother Child Province Bali According to Regency/City Year 2016-2021

Regency/City	Bali Province Mother Child Ratio According to Regency/City					
	2016	**2017**	**2018**	**2019**	**2020**	**2021**
Jembrana	277.71	282.39	280.38	275.24	274.97	261.12
Tabanan	241.07	242.67	239.72	237.50	239.96	226.13
Badung	276.07	273.72	276.64	285.75	275.71	267.26
Gianyar	282.23	275.00	274.80	269.88	268.36	267.83
Klungkung	312.01	301.18	300.25	298.14	294.42	281.23
Bangli	343.12	312.04	311.26	307.74	305.19	299.26
Karangasem	324.19	327.98	328.40	323.19	320.73	305.75

Buleleng	331.45	313.26	312.23	308.55	306.41	302.04
Denpasar	283.95	275.46	274.55	271.50	269.74	258.73
Bali province	**292.20**	**285.12**	**284.67**	**283.03**	**280.19**	**271.06**

Source: Body Center Statistics Province Bali 2020

The use of contraceptives is one of the family planning programs implemented by the BKKBN to control fertility levels and suppress population growth.

Table 3. Number of Active Family Planning Participants According to Provincial Contraception Methods

Bali According to Regency/City Year 2021

Regency/ City	Partner Age Fertile	Method Modern	Method Traditional	Amount Active Family Planning Participant	Prevalence of birth control %
Jembrana	50 427	29 871	67	29 938	59 37
Tabanan	68 693	40 689	447	41 136	59 88
Badung	73 836	36 000	503	36 503	49 44
Gianyar	72 751	38 479	1 010	39 489	54 28
Klungkung	30 518	14 891	159	15 050	49 32
Bangli	41 831	26 844	133	26 977	64 49
Karangasem	80 459	45 170	201	45 371	56 39
Buleleng	111 143	60 370	435	60 805	54 71
Denpasar	71 075	28 715	647	29 362	41 31
Total number:	**600 733**	**321 029**	**3 602**	**324 631**	**54 04**

Source: Body Population and Family Planning Province Bali 2021

Based on Table 3, it can be seen that the number of fertile couples in districts/cities in Bali Province in 2021, the number of fertile couples in Karangasem Regency is 80,459. In

Table 3 you can see the numbers participant KB active according to method contraception in Regency/City in Province Bali. It can be seen that in the Regency Karangasem own number of participants KB active amounting to 45,371 PUS with modern methods amounting to 45,170 PUS then with traditional methods amounting to 201 out of the existing total of 80,459 EFA and the prevalence of family planning in Karangasem Regency is 56.39 percent.

Karangasem Regency is one of the districts in Bali Province with an area of 839.54 km ^{2} with a total of eight sub-districts in Karangasem Regency, including Rendang, Sidemen, Manggis, Karangasem, Abang, Banyakdem, Selat and Kubu sub-districts. Karangasem Regency has two ports, namely Padang Bai Port and Tanah Ampo Port. Kubu District is one of the sub-districts in Karangasem Regency with an area of 234.77 km ^{2} located in the northern part of the island of Bali and is in direct contact with the Bali Sea and is at the foot of Mount Agung. Kubu District has nine villages including Ban, Dukuh, Kubu, Tianyar, West Tianyar, Central Tianyar, Tulamben, Baturinggit, and Sukadana.

Based on Table 4, it can be seen that the proportion of active family planning in Karangasem Regency, the number of PUS in Kubu District is 11,383 with 5,910 active family planning participants . The proportion of active family planning in Kubu District is 51.92 , which is the second lowest number in Karangasem Regency in 2021.

Table 4. Proportion of Active Family Planning in Karangasem Regency in 2021

	Proportion of Active Family Planning in Karangasem Regency		
	Number of EFA	**Family planning participants**	**Proportion of Active Family Planning**
Rendang	7,041	4,640	65.90
Sidemen	6,335	3,808	60.11
Mangosteen	8,050	3,706	46.04
Karangasem	16,861	8,893	52.74
Brother	14,503	8,806	60.72
Burdendem	9,096	5,139	56.50

Strait	7,190	4,469	62.16
Fort	11,383	5,910	51.92
Total number	**80,459**	**45,371**	**56.39**

Source: Body Population and Family Planning Province Bali 2021

The number of children they currently have is one of the influences on decisions made by couples of childbearing age to use contraception. According to Ratnasari et al. (2017), the problems often faced by couples of childbearing age today are mostly caused by people implementing the Balinese family planning program, namely having four children without eliminating the elements of Balinese names such as Wayan, Made, Komang, and Ketut. The Bali Family Planning Program occurred because most Balinese people tend to adhere to a patriarchal culture. Patriarchal culture is a culture that places boys as the highest authority compared to girls (Apriani and Karmini, 2021).

The social life of Balinese people, especially men, has a privileged position and role. Mistakes in interpreting the concepts of *purusa* and *pradana* in the form of men and women in social life in society give rise to injustice among women in Bali which makes the desire to have sons even more intense. higher than having a daughter, so this will influence the increase in the number of Darmawati births (2017). Patriarchal culture will contribute both directly and indirectly to increasing the fertility rate because it adheres to the concept of *purusa* and *pradana* , male children will continue the life of the family descendants, while female children do not.

Employment status can affect a person's fertility or ability to have children, as employment can influence income levels, economic stability, and access to the resources needed to raise children. Employment status in this study is whether a woman is working or not working after marriage. A woman's employment status will influence the decision to marry young or not. Most women who work have independence so the age at first marriage will be high (Febriyanti and Heny, 2017) .

This research is important to carry out so that it can be used as a reference for reducing fertility levels in a region, especially in Karangasem Regency. The government has made various efforts through policiesand launching programs to reduce the rate of population growth. One of the most effective in reducing the rate of population growth andfertility level, namely by the use of contraceptives.

Based on background behind on, so need done study more deep about influence level education, employment status, culture patriarchy, and family income on the use of

contraceptives and fertility in Kubu District, Regency Karangasem. By detailed problems Which will researched will served on formulation research problem.

RESEARCH METHODS

The design of this research is quantitative research using a deductive line of thinking where this research is based on general theories which are then tested with empirical data that has been collected. This research is in associative form, where this research is aimed at analyzing the relationship or influence of exogenous variables with endogenous variables through innervening variables. In this study, the exogenous variables include education level, employment status, patriarchal culture and family income, then the endogenous variable is fertility, and the intervening variable is the use of contraceptives.

DATA AND DISCUSSION OF RESEARCH RESULTS

1) Direct Influence

Direct influence of education level (X1) on the use of contraceptives (Y1)

The real level used in direct influence testing is α = 5% or 0.05 1)

(1) Hypothesis Formula

H0: $\beta 1 \leq 0$, meaning that education does not have a positive effect on the length of use of contraceptives in Kubu District, Karangasem Regency.

H1: $\beta 1 > 0$, meaning that the level of education has a positive effect on the use of contraceptives in Kubu District, Karangasem Regency .

(2) Calculations Based on calculations using the SPSS program, a standardized coefficient value of 0.211 and a probability value of 0.035 were obtained.

(3) Conclusion The standardized coefficient value is 0.211 and the probability value is 0.035, meaning that H0 is rejected and H1 is accepted. Thus, Sig. (0.035) < 0.05 means that the level of education (X1) has a direct effect on the use of contraceptives (Y1).

Direct influence of employment status (X2) on use of contraceptives (Y1)

The real level used in direct influence testing is α = 5% or 0.05 1)

(1) Hypothesis Formula

H0: β 2 ≤ 0, meaning that women who work have lower use of contraceptives in Kubu District, Karangasem Regency.

H1: β 2 > 0, meaning that working women have higher use of contraceptives in Kubu District, Karangasem Regency.

(2) Calculations Based on calculations using the SPSS program, a standardized coefficient value of 0.263 was obtained and a probability value of 0.009.

(3) Conclusion The standardized coefficient value is 0.263 and the probability value is 0.009, meaning that H0 is rejected and H1 is accepted. Thus, Sig. (0.009) < 0.05 means that employment status (X2) has a direct effect on the use of contraceptives (Y1).

The direct influence of patriarchal culture (X3) on the use of contraceptives (Y2)

The real level used in direct influence testing is α = 5% or 0.05 1)

(1) Hypothesis Formula

H0: B 3 ≤ 0, meaning that employment status has a lower effect on the length of use of contraceptives in Kubu District, Karangasem Regency.

H1: β 3 > 0, meaning that employment status has a higher influence on the use of contraceptives in Kubu District, Karangasem Regency.

(2) Calculations Based on calculations using the SPSS program, a standardized coefficient value of -0.185 was obtained and a probability value of 0.012 .

(3) Conclusion The standardized coefficient value is -0.185 and the probability value is 0.012 , meaning that H0 is rejected and H1 is accepted. Thus, Sig. 0.012) < 0.05 means that employment status (X3) has a direct effect on the use of contraceptives (Y1).

Direct Effect of Family Income (X4) on the use of contraceptives (Y1)

The real level used in direct influence testing is α = 5% or 0.05 1)

(1) Hypothesis Formula

H0: β4 ≤ 0, meaning that family income has a negative effect on the length of use of contraceptives in Kubu District, Karangasem Regency .

H1: β4 > 0, meaning that family income has a positive effect on the use of contraceptives in Kubu District, Karangasem Regency .

(2) Calculations Based on calculations using the SPSS program, a standardized coefficient value of 0.294 and a probability value of 0.000 were obtained.

(3) Conclusion The standardized coefficient value is 0.294 and the probability value is 0.000, meaning that H0 is rejected and H1 is accepted. Thus, Sig. 0.000) < 0.05 means that family income (X4) has a direct effect on the use of contraceptives (Y1).

Direct effect of education level (X1) on fertility (Y2)

(1) Hypothesis Formula

H0: $\beta 5 \geq 0$, meaning that education has a positive effect on fertility in Kubu District, Karangasem Regency .

H1: $\beta 5 < 0$, meaning that education has a negative effect on fertility in Kubu District, Karangasem Regency .

(2) Calculations Based on calculations using the SPSS program, a standardized coefficient value of -0.275 and a probability value of 0.009 were obtained.

(3) Conclusion The standardized coefficient value is -0.275 and the probability value is 0.009, meaning that H0 is rejected and H1 is accepted. Thus, Sig. (0.009) < 0.05 means that education (X1) has a direct effect on fertility (Y2). This also shows a negative relationship between education level and fertility. Where every one year increase in educational success will reduce fertility by -0.275 years .

Direct effect of employment status (X2) on fertility (Y2)

(1) Hypothesis Formula

H0: $\beta 6 \geq 0$, meaning that employment status has a non-negative effect on fertility in Kubu District, Karangasem Regency .

H1: $\beta 6 < 0$, meaning that employment status has a negative effect on fertility in Kubu District, Karangasem Regency .

(2) Calculations Based on calculations using the SPSS program, the standardized coefficient value is -0.197 and the probability value is 0.039.

(3) Conclusion The standardized coefficient value is -0.197 and the probability value is 0.039, meaning that H0 is rejected and H1 is accepted. Thus, Sig. (0.039) < 0.05 means that employment status (X2) has a direct effect on fertility (Y2). This also shows a negative relationship between education level and fertility. Where every increase in employment status will reduce fertility by -0.197 years .

Direct influence of patriarchal culture (X3) on fertility (Y2)

(1) Hypothesis Formula

H0: $\beta 7 \geq 0$, meaning that patriarchal culture has a non-negative effect on fertility in Kubu District, Karangasem Regency .

H1: $\beta 7 < 0$, meaning that patriarchal culture has a negative effect on fertility in Kubu District, Karangasem Regency .

(2) Calculations Based on calculations using the SPSS program, a standardized coefficient value of 0.144 and a probability value of 0.038 were obtained.

(3) Conclusion The standardized coefficient value is 0.144 and the probability value is 0.038, meaning that H0 is rejected and H1 is accepted. Thus, Sig. (0.038) < 0.05 means that patriarchal culture (X3) has a direct effect on fertility (Y2). This also shows the positive relationship between patriarchal culture and fertility.

Direct effect of family income (X4) on fertility (Y2)

(1) Hypothesis Formula

H0: $\beta 8 \geq 0$, meaning that family income has a non-negative effect on fertility in Kubu District, Karangasem Regency .

H1: $\beta 8 < 0$, meaning that family income has a negative effect on fertility in Kubu District, Karangasem Regency .

(2) Calculation

Based on calculations using the SPSS program, a standardized coefficient value of 0.314 and a probability value of 0.000 were obtained.

(3) Conclusion

The standardized coefficient value is -0.314 and the probability value is 0.000, meaning that H0 is rejected and H1 is accepted. Thus, Sig. (0.000) < 0.05 means that family income (X4) has a direct effect on fertility (Y2). This also shows a negative relationship between family income and fertility. Where every increase in family income will reduce fertility by 0.314 years .

Direct influence of contraceptive use (Y1) on fertility (Y2)

(1) Hypothesis Formula

H0: $\beta 9 \geq 0$, meaning that the use of contraceptives has a non-negative effect on fertility in Kubu District, Karangasem Regency .

H1: $\beta 9 < 0$, meaning that the use of contraceptives has a negative effect on fertility in Kubu District, Karangasem Regency .

(2) Calculation

Based on calculations using the SPSS program, a standardized coefficient value of -0.377 and a probability value of 0.000 were obtained.

(3) Conclusion

The standardized coefficient value is -0.377 and the probability value is 0.000, meaning that H0 is rejected and H1 is accepted. Thus, Sig. (0.000) < 0.05 means that the use of contraceptives (Y1) has a direct effect on fertility (Y2). This also shows a negative

relationship between the use of contraceptives and fertility. Where every increase in family income will reduce fertility by -0.377 years .

2) Indirect influence testing

Indirect effect of education level (X1) on fertility (Y2) through use of contraceptives (Y1)

(1) Hypothesis Formulation

H 0 : β10 = 0, duration of contraceptive use is not a mediating variable for education level (X1) on fertility (Y2)

H1: β10 ≠ 0, duration of contraceptive use as a mediating variable for education level (X1) on fertility (Y2)

(2) The real level is 5% (α = 0.05), then Z0.05/2 = 1.96

(3) Testing Criteria

If 1.96 ≤ Z count ≤ 1.96, then H0 is accepted, which means that the duration of contraceptive use is not a mediating variable.

If Z count is > 1.96 then H0 is rejected, which means that the duration of contraceptive use is a mediating variable .

(4) Calculation

Indirect influence of X1 on Y2 through Y1 = 0.211 x -0.377 = -0.079447

Sobel Test

$Sb_1b_9=\sqrt{P_1^2SP_9^2 + P_9^2SP_1^2}$

$Sb_1b_9=\sqrt{(0{,}211)^2(0{,}017)^2 + (-0{,}377)^2(0{,}127)^2}$

$Sb_1b_9= \sqrt{0{,}00214994125779}$= 0.0463

Z = $\frac{P^1P^9}{Sb_1b_9}$=

Z = $\frac{0{,}079447}{0{,}0463}$= 1.7159

(5) Conclusion

Z (1.715) > (1.96), then the use of contraceptives (Y1) is not a mediating variable for the relationship between education (X1) and fertility (Y2). Education (X1) directly influences the number of children born alive (Y2)

Indirect effect of employment status (X2) on fertility (Y2) through use of contraceptives (Y1)

(1) Hypothesis Formulation

H 0 : β10 = 0, duration of contraceptive use is not a mediating variable for employment status (X2) on fertility (Y2)

H1: β10 ≠ 0, duration of contraceptive use as a mediating variable for education level (X1) on fertility (Y2)

(2) The real level is 5% (α = 0.05), then Z0.05/2 = 1.96

(3) Testing Criteria

If Z count ≤ 1.96, then H0 is accepted, which means the duration of contraceptive use is not a mediating variable

If Z count > 1.96 or Z count < 1.96, then H0 is rejected, which means that the duration of contraceptive use is a mediating variable .

(4) Calculation

Indirect effect of X2 on Y2 through Y1 = 0.263 x -0.377 = -0.993212

Sobel Test

Sb_2b_9=$\sqrt{P_2^2SP_9^2 + P_9^2SP_2^2}$

Sb_2b_9=$\sqrt{(0{,}263)^2(0{,}017)^2 + (-0{,}377)^2(0{,}982)^2}$

Sb_2b_9= $\sqrt{0{,}137063761}$= 0.3705

Z = $\frac{P^2P^9}{Sb_2b_9}$=

Z = $\frac{-0{,}993212}{0{,}3705}$= -2.679

(5) Conclusion

Z (-2.679) > (-1.96), then the use of contraceptives (Y1) is a mediating variable for the relationship between employment status (X2) and fertility (Y2). Indirectly, employment status (X2) influences the number of children born alive (Y2) through the use of contraceptives (Y1)

Indirect influence of patriarchal culture (X3) on fertility (Y2) through the use of contraceptives (Y1)

(1) Hypothesis Formulation

H 0 : β10 = 0, duration of contraceptive use is not a mediating variable for patriarchal culture (X3) on fertility (Y2)

H1: β10 ≠ 0, duration of contraceptive use as a mediating variable for patriarchal culture (X3) on fertility (Y2)

(2) The real level is 5% (α = 0.05), then Z0.05/2 = 1.96

(3) Testing Criteria

If Z count ≤ 1.96, then H0 is accepted, which means the duration of contraceptive use is not a mediating variable

If Z count > 1.96 or Z count < 1.96, then H0 is rejected, which means that the duration of contraceptive use is a mediating variable .

(4) Calculation

Indirect effect of X3 on Y2 through Y1 = -0.185 x -0.377 = 0.069845

Sobel Test

$Sb_3b_9=\sqrt{P_3^2SP_9^2 + P_9^2SP_3^2}$

$Sb_3b_9=\sqrt{(-0{,}185)^2(0{,}017)^2 + (-0{,}377)^2(0{,}148)^2}$

$Sb_3b_9= \sqrt{0{,}003126051241}$= 0.00559

Z = $\frac{P^3P^9}{Sb_3b_9}$=

Z = $\frac{0{,}069845}{0{,}0559}$= 1.2494

(5) Conclusion

Z (1.24) < 1.96), then the use of contraceptives (Y1) is not a mediating variable for the relationship between patriarchal culture (X3) and fertility (Y2). By patriarchal culture (X 3) directly influences the number of children born alive (Y2) through the use of contraceptives (Y1)

Indirect effect of family income (X4) on fertility (Y2) through use of contraceptives (Y1)

(1) Hypothesis Formulation

H 0 : β10 = 0, duration of contraceptive use is not a mediating variable for family income (X4) on fertility (Y2)

H1: β10 ≠ 0, duration of contraceptive use as a mediating variable for family income (X4) on fertility (Y2)

(2) The real level is 5% (α = 0.05), then Z0.05/2 = 1.96

(3) Testing Criteria

If Z count ≤ 1.96, then H0 is accepted, which means the duration of contraceptive use is not a mediating variable

If Z count > 1.96 or Z count < 1.96, then H0 is rejected, which means that the duration of contraceptive use is a mediating variable .

(4) Calculation

Indirect effect of X4 on Y2 through Y1 = 0.294 x -0.377 = -0.110838

Sobel Test

$Sb_4b_9=\sqrt{P_4^2SP_9^2 + P_9^2SP_4^2}$

$Sb_4b_9=\sqrt{(0{,}294)^2(0{,}017)^2 + (-0{,}377)^2(0{,}369)^2}$

$Sb_4b_9= \sqrt{0{,}019365264338}$= 0.1391

Z = $\frac{P^4P^9}{Sb_4b_9}$=

Z = $\frac{0{,}110838}{0{,}1391}$= 7.968

(5) Conclusion

Z (0.79) < (1.96), then the use of contraceptives (Y1) is not a mediating variable for the relationship between family income (X4) and fertility (Y2). By Family income (X4) directly influences the number of children born alive (Y2) without using contraception (Y1) .

3) Standard Error Value

To be able to find out the value of e1 which shows the amount of variance in the variable length of use of contraceptives (Y1) which is not explained by the variables level of education (X1), patriarchal culture (X2), and family income (X3), it is obtained using the formula:

$$e1 = \sqrt{1 - R_1^2}$$

$e1 = \sqrt{1 - 0{,}547}$ =0.6729

Meanwhile, to find out the e2 value which shows the variance of the fertility variable (Y2) which is not explained by the variables level of education (X1), patriarchal culture (X2), family income (X3), and length of use of contraceptives (Y1) is obtained using the formula:

$$e2 = \sqrt{1 - R_2^2}$$

$$e2 = \sqrt{1 - 0{,}522} = 4{,}745$$

Discussion of Research Results

1) The influence of education level on the use of contraceptives

The results of statistical tests state that employment status directly and significantly influences the length of use of contraceptives. This also shows a positive relationship between education and the use of contraceptives. Based on the results of this research, it can be stated that the higher a person's successful years of education, the longer a person has used contraception. So, each increment is one Successful years of education will increase the length of use of contraception by 0.211 years. Based on research results, the highest level of education attained by couples of childbearing age in Kubu District, Karangasem Regency is high school, only a small group of couples of childbearing age continue their education to university. The results of this research were also strengthened by an in-depth interview with one of the respondents, namely Ni Ketut Santi, on February 7 2024 who said that:

“One of the factors that influences someone to use or not use contraception is education. Because the higher a person's education, the more they understand the importance of using good contraceptives. Apart from that, with higher education, of course we also think about the child's future and think more about career. So limiting the number of children by using contraception is the best way."

The results of this research are also supported by research from Pranata and Sudibia (2020) which states that the level of education has a positive and significant influence on the length of use of contraceptives. The results of this research are also in line with research conducted by Fitria (2016) on "The Relationship between Educational Level of Contraceptive Use and the Number of Children Birthed by Women of Childbearing Age Couples" that women of Childbearing Age Couples with low education, namely not graduating from elementary school to junior high school, use contraception. short-term. So, it can be concluded that education influences a person's attitude in making decisions, this is because the higher a person's education, the more rational that person will be in making decisions, one of which

is making decisions about using appropriate and effective contraceptives for couples of childbearing age in terms of regulate the spacing of child births, regulate the spacing of pregnancies, and prevent unwanted pregnancies (Mahmudah, 2015).

2) The influence of employment status on the use of contraceptives

The results of statistical tests state that employment status directly and significantly influences the length of use of contraceptives. This also shows a positive relationship between employment status and the use of contraceptives. Based on the results of this research, it can be stated that the more women work , the higher the number of contraceptive users. So, every increase in employment status will increase the length of use of contraceptives by 0.263 years. The results of this study are in line with the results of research conducted by John et al (2020) which shows that women who are employed will be more consistent in using contraception compared to women who do not work. In addition, a study conducted by Sugiarto, Mus seeninningsih, and Lestari (2021) also explored the influence of socio-economic factors on fertility levels in East Java Province, which may include employment status as one of the variables considered. This research is supported by the results of an in-depth interview with Ni Wayan Sukariasih on 11 February 2024 who stated:

"The view of individuals like Niki that working women have information about contraception in their work environment and working women have economic independence allows women to make decisions about contraceptive use without pressure from their partners or family. Because if the husband's income is only enough for the kitchen, the children's school fees, especially when we have lots of religious ceremonies and braye celebrations in Bali. "So women who work have income so they don't have difficulty using family planning."

3) The direct influence of patriarchal culture on the use of contraceptives

The results of statistical tests state that patriarchal culture directly and significantly influences the length of use of contraceptives. This also shows the negative relationship between patriarchal culture and the length of use of contraceptives. Based on the results of this research, it can be concluded that the stronger a person's patriarchal culture, the less time a person has to use contraception. So, every increase in patriarchal culture will reduce the

length of use of contraceptives by -0.189 years. The results of this research were also strengthened by an in-depth interview with one of the respondents, namely Ni Komang Juli Astitiani on February 9 2024 who said that:

“Many people still have the idea that men are the successors in the family. Moreover, as a Balinese society, the role of men is very necessary both in terms of economy, culture and local customs. So I, myself, am still trying to have a son to continue the family, to look after me in the future when my husband and I are old. "Therefore, I will only use contraception when I have a son, like now, I have used contraception, even though it's only been a while."

So it can be concluded that patriarchal culture influences a person's attitude in making decisions about using contraception, this is because the stronger a person's patriarchal culture, the less likely a person is to use contraception. This is because the stronger a person's patriarchal culture, the tendency to have sons rather than daughters as family heirs and the husband's dominance in determining the number of children will also be higher. The results of this research are also in line with the results of research conducted by Herawati and Purnomo (2015) regarding "The Relationship between Patriarchal Culture and Understanding of Family Planning Information with Contraception Participation". Where in this research it was stated that fishermen's wives who did not have a patriarchal culture were more likely to participate in contraception compared to fishermen's wives who had a patriarchal culture.

4) Direct influence of family income on contraceptive use

The results of statistical tests state that family income directly and significantly influences the length of use of contraceptives. This shows that family income has a positive relationship with the length of use of contraceptives, which means that the higher the family income, the longer a woman will use contraceptives. So, every increase in income level will increase the duration of contraceptive use. Apart from that, this research is in line with research conducted by Oktaviani (2015) regarding "The Relationship Between Level of Education and Income and the Level of Participation of Couples of Childbearing Age in the Implementation of the Family Planning Program in Meganti Village, Kesugihan District, Cilacap Regency in 2015" which states that the level of income influence the use of contraceptives. This is also supported by an in-depth interview with one of the respondents on February 11 2024. Ni Wayan Widyawati who stated that:

"In my opinion, income is important when using contraception, because household needs and children's education are already quite large, plus using contraception also costs money, so

people will think about using contraception, so those with high income will definitely use contraception compared to other people. Those whose income is low will definitely think about using contraception, and the money is better for food and their needs first."

5) Direct influence of education level on fertility

The results of statistical tests state that education has a direct effect on fertility. This also shows a negative relationship between education level and fertility. Where every one year increase in educational success will reduce fertility by -0.275 years. This research is in line with research conducted by Putri Wahyuni et al (2022) entitled the influence of education level and population density on fertility levels in the city of Medan. stated that partially the educational level variable had a negative and significant effect on fertility levels. These results are supported by an in-depth interview on February 11 2024 with Ni Luh Sariani who stated " I myself want to have quality children. For me, two children are enough. It doesn't matter if I have a few children, the important thing is that I can give my children a decent life, good facilities and a high education . "

6) Direct influence of employment status on fertility

The results of statistical tests state that employment status has a direct effect on fertility. This also shows a negative relationship between education level and fertility. Where every one year increase in educational success will reduce fertility by -0.197 years. The results of this research are in line with the results of research by Prayogi and Sudibia (2022) which shows that employment status has a negative effect on fertility. Apart from that, this research is also supported by an in-depth interview on February 13 2024 with Ni Luh Selat who stated:
"In my opinion, especially since I work myself and have experience when my child was 1 year old, I had to work so I had to leave my child with my in-laws. In fact, it's good for my child to be close to his father, but it makes me sad to see my child have to be left behind every morning until evening. So I don't want that to happen again, that's why my husband and I decided to just have 2 children, because if I stop working then the money won't be enough for living needs."

7) The direct influence of patriarchal culture on fertility

The results of statistical tests state that patriarchal culture has a direct influence on fertility. This also shows a positive relationship between education level and fertility. Where every one year increase in educational success will reduce fertility by 0.144 years. The results

of this research are also in accordance with research conducted by Yusuf (2020) on "Fertility Determination: Case Study in West Nusa Tenggara" which states that in West Nusa Tenggara boys are a valuable asset for the family, in contrast to girls who are considered still as a family burden. Therefore, the family's preference for having a son is still very high. So, it can be concluded that patriarchal culture influences the number of children born. Patriarchal culture will influence a person's thoughts about having a son. The stronger the patriarchal culture a person has, the higher a person's desire to have at least one son. This research is also supported by an in-depth interview on 13 February 2024 with Ni Nengah Merta who stated:

"For me in Bali, boys are more important than girls, because boys will continue the family lineage. So for me, having a boy is a must. For me, it doesn't matter if there are lots of children, the important thing is that there must be boys. "Because when girls grow up they will get married, their parents will be left behind, so they have to have boys so they can take care of their parents in the future ."

8) Direct influence of family income on fertility

The results of statistical tests state that employment status has a direct effect on fertility. This also shows a negative relationship between education level and fertility. Where every one year increase in educational success will reduce fertility by 0.314 years. The results of this research are also in accordance with research conducted by Ismail which stated that family income has a negative effect and has a significant influence on fertility in Tanjung Raya Village, Kecepatan District, Bandar Lampung City. The results of this research are also in accordance with research conducted by Ririn (2018) on "Analysis of Factors Affecting Fertility Levels in Watang Sawitto District, Pinrang Regency", which states that income levels have an effect on fertility where when income increases, the number of children desired is reduced. The results of this research are also supported by research conducted by Arialdi and Muhammad (2016) on "The Influence of Urbanization, Education and Income on Fertility Levels in Five Cities of Aceh Province" which states that income has a negative and significant effect on fertility. This research is also supported by an in-depth interview on February 13 2024 with Ni Luh Candra who stated:

"Because my husband and I decided to only have one child because my husband and I wanted all the facilities needed to support our child's development to be fulfilled optimally. "Because my husband and I are busy, our choice to have just one child was the right choice in our opinion."

9) Direct influence of contraceptive use on fertility

The results of statistical tests state that the duration of contraceptive use on fertility is significant. This shows that the duration of contraceptive use has a negative relationship with fertility levels, which means that female couples of childbearing age who use contraception for longer will reduce the rate. The results of this study are also in accordance with research conducted by Pranata and Sudibia (2021) which states that the duration of contraceptive use has a negative effect on fertility, which means that the longer contraceptive use is, the birth rate will tend to be low. This is in line with research conducted by Prisilla and Rujiman (2023) on "Analysis of Factors that Influence Fertility Levels in Female Workers in Medan City (Medan Deli District)" which explains that the use of contraception has a negative and significant influence, which means that every increase Contraceptive use will cause a decrease in fertility rates. The same as the results of research conducted by Singh et al (2020) stated that the longer female couples of childbearing age use contraception, the lower the fertility rate. This research is also supported by an in-depth interview on February 13 2024 with Ni Kadek Pica who stated:

" I use birth control because I think two children are enough for me. Plus, my child is already a boy and a girl , so I prevent unwanted pregnancies by using birth control. So for me, using contraception is important for mothers like me."

4.4.2 Indirect Influence Through Testing Mediating Variables

1) Indirect effect of education level on fertility through length of use of contraceptives

The result is Z (1.715) > (1.96), so the use of contraceptives is not a mediating variable in the relationship between education and fertility. Education directly influences the number of children born alive. without using contraception . These results are supported by research by Andira and Tisnawati (2024). Entitled Analysis of Factors That Influence Fertility Through the Use of Contraceptives in West Denpasar District. States that the variable length of contraceptive use is unable to mediate the education variable on the fertility variable in West Denpasar District. Thus, it can be concluded that the influence of the education variable will be stronger if it goes directly to the fertility variable compared to the influence of the education variable on the fertility variable through the variable use of contraceptives .

2) Indirect influence of employment status on fertility through length of use of contraceptives

The result is Z (-2.679) > (-1.96), so the use of contraceptives is a mediating variable for the relationship between employment status and fertility (Y2). Indirectly, employment status influences the number of children born alive through the use of contraceptives.

3) The indirect influence of patriarchal culture on fertility through the length of use of contraceptives

The result of Z (1.24) < 1.96), then the use of contraceptives is not a mediating variable in the relationship between patriarchal culture and fertility. By Patriarchal culture directly influences the number of children born alive without using contraception. These results are supported by research by Suryadana (2024) entitled Analysis of Factors That Influence the Use of Contraception and Fertility in Manggis District, Karangasem Regency. Which states that the length of contraceptive use is not able to mediate the gender preference variable on the fertility variable in Manggis District. Thus, it can be concluded that the influence of the patriarchal culture variable will be stronger if it goes directly to the fertility variable compared to the influence of the patriarchal culture variable on the fertility variable through the contraceptive use variable .

4) Indirect influence of family income on fertility through the duration of contraceptive use

Results Z (0.79) < (1.96), then the use of contraceptives is not a mediating variable in the relationship between family income and fertility. By Family income directly influences the number of children born alive without using contraception . These results are supported by research by Andira and Tisnawati (2024). Entitled Analysis of Factors That Influence Fertility Through the Use of Contraceptives in West Denpasar District. State that the variable length of contraceptive use is unable to mediate the household income variable on the fertility variable in West Denpasar District. Thus, it can be concluded that the influence of the family income variable is stronger if it goes directly to the fertility variable compared to the influence of the family income variable on the fertility variable through the length of contraceptive use variable.

CONCLUSION

Based on the results of research that has been carried out regarding the analysis of factors that influence fertility levels in Kubu District, Karangasem Regency, the following conclusions can be drawn:

1) Level of education, Employment Status and Family Income are significant and have a positive effect on Use of Contraceptives in Kubu District, Karangasem Regency.
2) Patriarchy culture has a significant and negative influence on the use of contraceptives in Kubu District, Karangasem Regency .
3) Women who work have higher use of contraceptives compared to those who do not work in Kubu District, Karangasem Regency .
4) Level of education, Employment Status and Family Income have a significant and negative effect on Fertility Levels in Kubu District, Karangasem Regency
5) Patriarchal culture has a significant and positive influence on Fertility Levels in Kubu District, Karangasem Regency
6) Women who do not work have a higher fertility rate than those who work in Kubu District, Karangasem Regency .
7) The use of contraceptives mediates employment status in Kubu District, Karangasem Regency .

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