INTERNET USAGE AND IDEAL NUMBER OF CHILDREN IN INDONESIA (THE ANALYSIS OF THE 2017 IDHS)

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Abstract

Internet usage in Indonesia is growing rapidly each year. Information on the internet is considered to affect the way of thinking and the behaviour of its users. This can be seen, among other things, on the women internet user's desired or ideal number of children. This research aims to study the patterns and differentials of the ideal number of children among women in Indonesia according to internet usage and the effect of the use of internet on women's ideal number of children in Indonesia after controlling for the effects of socio-economic factors. This study used data from the results of 2017 Indonesia Demographic and Health Survey (DHS). The method used to analyze the data is multinomial logistic regression. The analysis is conducted on all childbearing-aged women (15-49 years old) and married childbearing-aged women. The results of the study show that childbearing-aged women who used the internet wanted less children compared to those who did not use the internet. The results of this study can be used as a reference by the related stakeholders to formulate policies that support fertility level management in Indonesia using information and communication technology, the internet in particular.
Keywords: *Childbearing-aged women; ideal number of children; Indonesia; internet; multinomial logistic regression*

1. INTRODUCTION

Birth is one of the main components of demographics. Birth rate in Indonesia is currently stagnant and tends to decline. This situation is concerning because it could change the structure of the population in Indonesia. Through the National Medium-Term Development Plan (RPJMN) 2020-2024, the government wants to improve the quality of life of Indonesian people by controlling the population so that the population grows in balance. Balanced population growth can be achieved with a fertility condition that is at the replacement level, which total fertility levels of about 2.1 children per woman. This number then becomes the target that the government wants to achieve by 2024.

Based on the results of the 2015 Inter-Censal Population Survey (SUPAS), Indonesia's total birth rate in 2015 stands at 2.28. Indonesia still needs to strive to achieve a population that grows with a balance due to the considerable difference between the current total birth rate and the desired total birth rate. According to the 2017 IDHS results, the percentage of women of childbearing age in Indonesia who want a relatively large number of children is still very high. Around 33.95% of women want 3-4 children and 15% of women want 5 or more children or non-numeric, while 51.06% of them want 0-2

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children. The high percentage of women who want a relatively large number of children can create problems to reach 2.1 in the total birth rate by 2024.

Having children is the result of fertility intentions that were previously formed through a person's fertility desire. Fertility desire is a very broad and varied aspect because it is very personal. The desire for fertility can generally occur due to problems of religious adherence, traditions, economic condition, and so on.

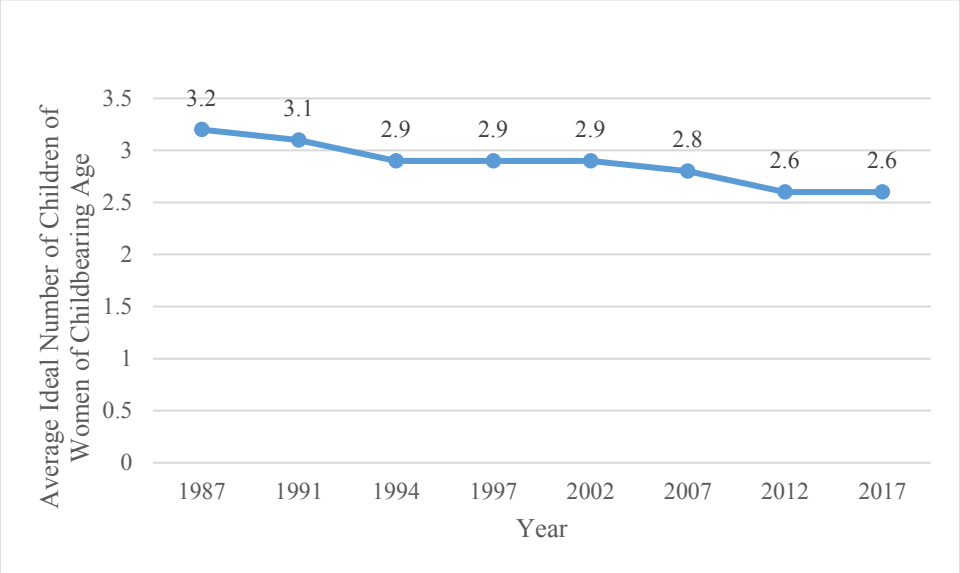

Figure 1. Average Ideal Number of Children of Women of Childbearing Age in Indonesia

Source: IDHS 1987, 1991, 1994, 1997, 2002, 2007, 2012, dan 2017

Fertility desire is generally measured by the average ideal number of children. The trend in the average ideal number of children according to the IDHS results continues to decline to 2.6 in 2017. This figure indicates the number of children that someone actually wants if they do not have children. Based on the data collected through the IDHS, the more children a person has, the more children are considered ideal.

A decline in the total birth rate a few decades ago was necessary, but in the future, this could be a problem for Indonesia. The low state of the total birth rate is a condition that needs to be concerned about and needs to pay attention to, especially for policymakers. The low total birth rate can cause population aging in the future which in turn creates a decrease in productivity and can create new burdens, such as an increase in dependency burden. The increase in dependency burden means that the dependents of the productive age population will be greater in the presence of an aging population. This situation will also harm economic growth, create social problems, and other problems. If this trend continues, there are concerns that by 2045, Indonesia will have the same fate as developed countries, which is the increase of the elderly population and a reduction in the population of the productive labor force if the number of children owned by each household continues to decline. Therefore, it is necessary to think about how to extend the demographic bonus and keep the total birth rate stable at 2.1 because there is a tendency for Indonesian families to wanting fewer number of children.

The Indonesian Population Projection predicts that in 2015-2020 Indonesian women of childbearing age will give birth to 2.17 children and until 2045 will be stable in giving birth to 2.1 children. The prediction figure from the Indonesian Population Projection is the government's hope to maintain demographic conditions. Unlike the results of the Indonesian Population Projection, the 2019 World Population Prospect projects that by 2045, Indonesia will have a total birth rate of 1.95, which is below the ideal replacement level. For this reason, through the National Medium-Term Development Plan (RPJMN) 2020-2024, the government aims to keep the total birth rate stable at 2.1 or two children per woman.

Total birth rate is an important indicator of population problems. The low birth rate in a country can be a threat to the country's resilience, especially the high dependency ratio caused by an aging population. Therefore, to prevent an aging population, it is necessary to analyze the aspects that have caused the decline in the total number of births in the world by looking at the fertility desires that exist in the community.

The desire for fertility can be influenced by various information received by the community. In this era, people generally get this information through the internet. The development of technology, especially the internet, can change all aspects of life. The internet has a variety of information from all corners of the world without any restrictions. Various new perspectives can be obtained with the existence of the internet. It is estimated that the internet can affect fertility desires for the world's population.

In this era, people's lives cannot be far from the internet. Based on data from Digital 2019 Reports conducted by Hootsuite and We Are Social, there are 4.39 billion internet users in 2019 worldwide and an estimated 11 new users per second. In Indonesia, the overall internet penetration rate according to the World Bank was 39.79% in 2018. Urban and rural areas certainly have different levels of penetration. Based on SUSENAS, internet penetration in Indonesia has a trend that continues to increase every year and there is a significant difference between internet penetration in the two regions.

The way people think today is much different from the way people think a few years ago. This is due to the increasingly open access to the outside world, especially for urban communities that have a high level of internet penetration. With the massive development of the internet, researchers have begun to focus on looking at the impact of the internet on life. There are various responses and hypotheses regarding the internet, such as: the internet is a technology that can disrupt traditional family life (Conley, 2009); the internet is a growing medium and has the potential to find a partner (Rosenfeld and Thomas, 2012); and the internet is a technology that allows spill-over from work life to home life or vice versa (Wajcman, 2014).

From the background description above, it shows that it is necessary to conduct a study on the fertility desire or the ideal number of children related to the effect of internet use in Indonesia. Research on fertility desires is important because the results of this study can be used to design appropriate policies to support the handling of birth rates. This research on the effect of internet use on the ideal number of children is limited to women in Indonesia aged 15-49 years.

Based on the background of the problems related to threats that can arise from the decreasing total birth rate, the problem formulations in this study are how are the patterns and differences in the ideal number of children according to women in Indonesia

according to internet usage and how does internet use affect the ideal number of children according to women in Indonesia after being controlled with certain socio-economic factors?

Based on the problems that have been stated above, this study aims to examine the effect of the internet on the ideal number of children according to women in Indonesia. Meanwhile, the specific objectives of this study are studying the patterns and differences in the ideal number of children according to women in Indonesia according to internet usage and certain social and economic factors and studying the effect of internet use on the ideal number of children according to women in Indonesia after being controlled with the influence of certain social and economic factors.

2. LITERATURE STUDY

1) Determinants of Fertility

A person's birth rate is often measured directly using the impact of socio-economic factors on fertility. There are several studies related to socio-economic factors on fertility, one of which is by Davis and Blake (1956). Research conducted by Davis and Blake describes 11 intermediate variables that affect fertility which is then grouped into three categories, namely the stage of sexual relations, the stage of conception, and the stage of pregnancy.

Research on socio-economic factors on fertility was also carried out by Becker (1960), particularly on the number of children in a family. The theory carried out by Becker discusses the quality and quantity of children. Becker assumes that the quality and quantity of children have a positive effect on income elasticity at constant prices. However, as income increases with economic growth and development, it is assumed that the demand for quality of children becomes more elastic and increases more rapidly. This results in higher prices for childcare and thus reduces the demand for the number or quantity of children.

Income is one of the factors that affect the number of children in the household. Based on the publication of Becker (1960), children have a negative correlation with income, but there is no relationship between children and income. Becker assumes that child ownership preferences are viewed from two sides, namely the quality and quantity of children. According to Becker, children are judged as inferior goods if they do not have good quality.

Furthermore, according to Becker (1991), demand for children is the number of children wanted when there are no things that prevent the act of having or not having children. The choice of birth is conditioned by the social, educational, cultural, and economic conditions faced by each individual. This demand for children affects the relative price of the child and the full income of a household, where the relative price of the child is the direct cost of caring for the child (such as health and education costs) and the net cost of caring for the child (the contribution of the child to household income). When the relative price increases, the demand for children will effectively decrease. In addition, other costs related to the time spent caring for children are part of the relative costs. Time spent caring for children can have a significant impact on demand for children.

2) Fertility Desire

Fertility intention has an important role in fertility itself (Azmoude et al., 2017). The importance of intention in terms of fertility is because fertility is an action based on intention which is then integrated into life (Schoen et al., 1999). Fertility intentions are influenced by different factors for each individual and will lead to the actualization of the pregnancy or childbirth which is formed from the desire for fertility. Fertility desire and fertility intention are different things. Sometimes there is a misunderstanding between fertility desire and fertility intention. The desire for fertility can be in the form of a person's hopes for having children when all potential barriers are not taken into account (Miller, 2011), usually measured by the "ideal number of children".

There is a concept entitled Theory of Planned Behavior which can explain how fertility behavior works (Ajzen 1991, 2005). The main idea of this concept is that what motivates the fertility intention of a person and a partner starts from a sequential process that begins with traits that unconsciously motivate to have or not have children, then it develops into a conscious desire to have or not have children, which eventually develops into an act or act of behavior which is a tool in the act of having or not having children, which then becomes an event of birth (Miller, 2011).

The desire for fertility is expected to be a signal for future fertility. The higher the certainty of a person's fertility desire, the greater the likelihood that the desired fertility will occur (Schoen et al., 1999).

3) Information and Communication Technology, Internet Usage, and Its Impact on Society

Information and communication technology is a vital component of today's everyday life. Information and communication technology has many roles for human development, from the aspects of education, health, and improving living standards (Bankole and Mimbi, 2017; Yakunina and Bychkov, 2015; Lee et al. 2017).

Sociologists have conducted research on one of the information communication technologies, which is the internet, and its effects on people's lives. Daniel Bell (1977) conducted a study on the social impact of digital communication media and predicted that there are major consequences of electronic developments that can accelerate the movement of information. Castells (1996) also argues that the ability of the internet to integrate various forms of information into one system can have an impact on people's lives, create new forms of identity, and build new forms of social organization.

The internet can increase efficiency and make humans more productive and provide convenience by eliminating the need to travel to their destination to carry out activities. Because of the internet too, the literacy level of its users is reported to be higher than those who do not use the internet (DiMaggio et al., 2001).

4) Internet Use and Fertility

The internet can affect transitions in marriage, especially in finding partners who will become parents of their children (Rosenfeld and Thomas, 2012). With the help of internet mediation, traditional partner formation can be replaced. Marriage, which is a determinant that has an impact on fertility, thus the impact of using the internet

on fertility can be mediated through marriage (Billari et al., 2017). The internet can also facilitate the balancing of the division of time for work and family. With internet-based work, parents can reduce their time to travel to the office, reduce absenteeism and increase productivity, and of course, increase time spent with family (Dettling, 2017).

5) Internet and Information About Fertility

Interest in having children has a strong association with knowledge about fertility. Based on recent research, knowledge about fertility in Japan is lower than in other developed countries. This could be one reason why Japan has a low birth rate (Maeda et al., 2015). Maeda researched the knowledge of men and women aged 18-59 and included people who were trying to give birth for at least six months on fertility using the Japanese version of the Cardiff Fertility Knowledge Scale (CFKS-J). There are 44% of the sample from the study who managed to answer the items from the CFKS-J correctly. Based on the results of multivariate linear regression analysis, 65% of the sample who knows things about fertility get knowledge about it from the mass media or the internet.

Based on theoretical reviews and empirical studies, the analytical framework in conducting the analysis of the internet and the ideal number of children according to women in Indonesia is as follows.

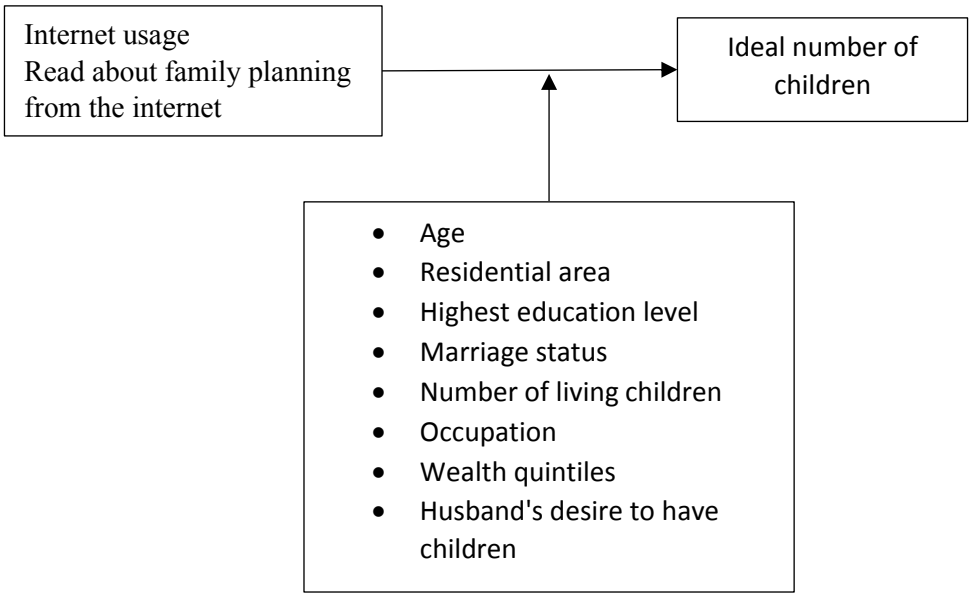

Figure 2. Analytical Framework

3. RESEARCH METHODOLOGY

This study aims to analyze the use of the internet and the ideal number of children according to women of childbearing age in Indonesia. This study uses secondary data obtained through the results of 2017 Indonesian Demographic and Health Survey (IDHS). The unit of analysis for this study is women aged 15-49 years or can be categorized as women of childbearing age. This category includes never-married women who are part of women of childbearing age. The samples from IDHS that will be used in this study are individual women from women of childbearing age aged 15-49 years.

This study will use economic research methods to build research models and process the data. The main method of this research is quantitative research and will be supported by qualitative methods to support the findings and provide a broader perspective. This study focuses on cross-sectional data at the national level.

The variables used in this study are presented in table 1.

Table 1. Research Variables, Symbols, Operational Definitions, and Categorization

Variables	Operational Definitions	Categorization	
		Descriptive	Inferential
Dependent Variable			
Ideal number of children	Number of children wanted	1. 0-2 children 2. 3-4 children 3. ≥5 children and non-numeric response	
Independent Variable			
Internet usage (*internet*)	The length of internet usage in the last month before census	1. Everyday 2. Everyweek 3. Less than once a week 4. Never 5. No answer	0. Never use the internet * 1. Use the internet
Read about family planning from the internet (*fpinternet*)	Have or never have read about family planning information via the internet	0. No* 1. Yes	
Control Variable			
Age (*age*)	Age of respondent during census	1. 15-24 years old* 2. 25-34 years old 3. 35-49 years old	
Residential area (*location*)	The place where the respondent lived during the census	1. Urban 2. Rural*	
Highest education level (*education*)	Highest education level of the respondent	1. Do not go to school 2. Primary school 3. Middle school 4. High school and above	1. Do not go to school and primary school* 2. Middle school 3. High school and above
Marriage status (*married*)	Respondents' marital status during the census	0. Not married* 1. Married	
Number of living children (*children*)	The number of living children owned by the respondent	0. No living children* 1. 1 living children 2. 2 living children 3. 3 living children 4. 4 living children or more	
Occupation (*occupation*)	Respondents' type of occupation	0. Not working 1. Agriculture* 2. Others	

Wealth quintiles (*wealth*)	Household income quintile	1. Q1 (lowest)* 2. Q2 3. Q2 4. Q4 5. Q5 (highest)	
Husband's desire to have children (*husband*)	The number of children the husband wants	1. Less 2. Equal 3. More 4. Do not know 5. Do not have a husband	0. Do not have a husband* 1. Equal 2. Others

Note: * = reference category

To support the findings and provide a broader perspective, this study will present the data or observations in a concise and clear manner. Descriptive analysis in this study is also important to see the significant relationship between variables. In addition to descriptive analysis, the authors used a multinomial logistic regression model. The multinomial logistic regression model is an analytical tool used to describe the relationship between the dependent variable in the form of multinomial data and the independent variables. The multinomial scale is a measurement that is divided into more than two categories.

This study formed two separate models, namely a model of the entire sample of women of childbearing age and a model of women of childbearing age who is currently married. The female model aged 15-49 who is currently married is made to see the difference in the impact when a woman has a husband, who also has a voice in determining the number of children. This model will only look at the direct impact of internet use on the number of children desired by women of childbearing age. The method used to examine the effect of the internet on the ideal number of women in Indonesia in this study is logistic regression with a nominal scale dependent variable with the following three categories.

- Y=1 ; wants 0-2 children
- Y=2 ; wants 3-4 children
- Y=3 ; wants ≥5 children and non-numeric response

Next, the model can be described as follows.

1. Women of childbearing age

$$g_j(x) = \beta_{j0} + \beta_{j1}Internet + \beta_{j2}fpinternet + \beta_{j3}age + \beta_{j4}location + \beta_{j5}education + \beta_{j6}married + \beta_{j7}children + \beta_{j8}occupation + \beta_{j9}wealth + \beta_{j10}husband$$

2. Women of childbearing age who is currently married

$$g_j(x) = \beta_{j0} + \beta_{j1}Internet + \beta_{j2}fpinternet + \beta_{j3}age + \beta_{j4}location + \beta_{j5}education + \beta_{j6}children + \beta_{j7}occupation + \beta_{j8}wealth + \beta_{j9}husband$$

4. RESULT AND DISCUSSION

1) Difference in the ideal number of children

Bivariate descriptive analysis is carried out to explain the sample description when viewed by the ideal number of children (the desired number of children). Table

2 is a summary of the sample statistics when viewed by the ideal number of children (the desired number of children).

Table 2. Summary of Descriptive Statistics for the Unit of Analysis by Ideal Number of Children

Variable	Ideal Number of Children (Number of Children Wanted)			
	0-2	3-4	≥5 and non-numeric	Total
Internet Usage				
Everyday	10.013	5.461	1.469	16.943
	59,10	*32,23*	*8,67*	*100*
Everyweek	2.574	1.484	474	4.532
	56,80	*32,74*	*10,46*	*100*
Less than once a week	840	509	239	1.588
	52,90	*32,05*	*15,05*	*100*
Never	11.083	8.842	5.019	24.944
	44,43	*35,45*	*20,12*	*100*
No answer	15	10	2	27
	55,56	*37,04*	*7,41*	*100*
Read about family planning from the internet				
Yes	6.228	3.742	838	10.808
	57,62	*34,62*	*7,75*	*100*
No	18.279	12.534	6.350	37.163
	49,19	*33,73*	*17,09*	*100*
Age				
15-24	8.935	3.901	1.395	14.231
	62,79	*27,41*	*9,80*	*100*
25-34	6.764	5.235	1.640	13.639
	49,59	*38,38*	*12,02*	*100*
35-49	8.826	7.170	4.168	20.164
	43,77	*35,56*	*20,67*	*100*
Residential Area				
Rural	13.963	8.469	3.088	25.520
	54,71	*33,19*	*12,10*	*100*
Urban	10.562	7.837	4.115	22.514
	46,91	*34,81*	*18,28*	*100*
Education Level				
Do not go to school	215	288	337	840
	25,60	*34,29*	*40,12*	*100*
Primary school	4.934	4.233	2.679	11.846
	41,65	*35,73*	*22,62*	*100*
Middle school	14.787	8.337	3.324	26.448
	55,91	*31,52*	*12,57*	*100*
High school and above	4.589	3.448	863	8.900
	51,56	*38,74*	*9,70*	*100*
Marriage status				
Married	15.744	12.385	5.437	33.566
	46,90	*36,90*	*16,20*	*100*
Not married	8.781	3.921	1.766	14.468
	60,69	*27,1*	*12,21*	*100*
Number of living children				
0	8.744	3.949	1.582	14.275
	61,25	*27,66*	*11,08*	*100*
1	5.245	2.692	737	8.674
	60,47	*31,04*	*8,50*	*100*
2	6.879	4.037	1.313	12.229

	56,25	*33,01*	*10,74*	*100*
3	2.436	3.488	1.387	7.311
	33,32	*47,71*	*18,97*	*100*
≥4	1.221	2.140	2.184	5.545
	22,02	*38,59*	*39,39*	*100*
Occupation				
Not working	10.362	6.053	2.836	19.251
	53,83	*31,44*	*14,73*	*100*
Agriculture	2.495	2.223	1.471	6.189
	40,31	*35,92*	*23,77*	*100*
Others	11.655	8.013	2.892	22.560
	51,66	*35,52*	*12,82*	*100*
Wealth quintiles				
1	4.361	3.819	2.443	10.623
	41,05	*35,95*	*23,00*	*100*
2	4.791	2.957	1.438	9.186
	52,16	*32,19*	*15,65*	*100*
3	4.943	2.981	1.232	9.156
	53,99	*32,56*	*13,46*	*100*
4	5.100	3.203	1.082	9.385
	54,34	*34,13*	*11,53*	*100*
5	5.330	3.346	1.008	9.684
	55,04	*34,55*	*10,41*	*100*
Husband's desire to have children				
Less	408	895	324	1.627
	25,08	*55,01*	*19,91*	*100*
Equal	10.676	7.951	2.427	21.054
	50,71	*37,76*	*11,53*	*100*
More	3.226	2.111	806	6.143
	52,52	*34,36*	*13,12*	*100*
Do not know	858	884	1.576	3.318
	25,86	*26,64*	*47,50*	*100*
Do not have a husband	9.357	4.465	2.070	15.892
	58,88	*28,10*	*13,03*	*100*
Total	**24.525**	**16.306**	**7.203**	**48.034**
	51,06	***33,95***	***15,00***	***100***

Note: Unit of measurement: women of childbearing age

The internet is considered to be a source of information and can change the perspective of its users. This is because, on the internet, there is all information from many different points of view. In addition, the internet can also make life or daily activities easier. It can be seen from table 2, the fewer women use the internet, the percentage of both categories of the ideal number of children increases. The majority of women of childbearing age who use the internet every day want 0-2 children, which is 59.10% and 8.67% of them answered that they want five or more children or it's up to God (non-numeric). When women of childbearing age did not use the internet at all, the percentage who answered that they wanted to have five or more children or non-numeric became 20.12%.

As is well known, the use of the internet can provide a variety of information, including information about family planning. Based on the results of the univariate analysis, only 22.45% of the total sample had read about family planning via the internet. Women who read information about family planning via the internet tend to prefer fewer children than those who do not. For those who read family planning via

the internet, there is 7.75 percent of them wanted to have five or more children or non-numeric, while when women who did not read information about family planning via the internet, 17.09% of them wanted to have five or more children or non-numeric.

In every relationship between partners, the desired number of children between wives and husbands is not always the same. Sometimes it is the difference in the ideal number of children between partners that makes a mismatch in fertility desires and the actual fertility. According to 2017 IDHS, in general, men want slightly more children than women. The cross table between the husband's desire to have children and the number of children desired by women of childbearing age gives quite an interesting result. It can be seen from table 2 that women whose husbands want fewer children actually have a greater percentage of wanting to have five or more children or non-numeric than women whose husbands want more and others. There were 19.91% of women whose husbands wanted fewer children who wanted to have five or more children or non-numeric and 13.12% of women whose husbands wanted more children. In other conditions, women who do not know what their husband wants are more likely to want to have five or more children or non-numeric, while those who do not have a husband tend to want 0-2 children.

2) Determinants of the Ideal Number of Children

The result of multinomial logistic regression in this study showed that the overall model could well describe the influence between internet use and other observed factors on the number of children desired by the sample. Table 3 is a table of multinomial logistic regression results to determine the effect of internet use on the ideal number of children.

Table 3. Multinomial Logistic Regression Results Based on Odds Ratio of Internet Use and Ideal Number of Children According to Childbearing-Aged Women in Indonesia

Characteristics	Ideal Number of Children (Number of Children Wanted)					
	0-2 to ≥5 or non-numeric		3-4 to ≥5 or non-numeric		0-2 to 3-4	
	β	Odds Ratio	β	Odds Ratio	β	Odds Ratio
Internet Usage	0,194	1,214	0,114	1,121	0,079	1,083
Read About Family Planning From The Internet	0,282	1,326	0,345	1,412	-0,063	0,939
Age						
15-24	reference category					
25-34	-0,303	0,739	-0,119	0,888	-0,184	0,832
35-49	-0,370	0,691	-0,465	0,628	0,095	1,100
Residential Area						
Urban	0,182	1,200	0,096	1,101	0,086	1,090
Rural	reference category					
Education Level						
Do not go to school and primary school	reference category					
Middle school	0,341	1,407	0,217	1,242	0,124	1,132
High school and above	0,124	1,132	0,421	1,523	-0,297	0,743
Marriage Status	0,299	1,349	0,371	1,450	-0,072**	0,931
Number of living children						
0	reference category					
1	0,474	1,606	0,332	1,394	0,142	1,152

2	0,303	1,354	0,335	1,398	-0,032**	0,968
3	-0,725	0,484	0,265	1,303	-0,990	0,372
≥4	-1,695	0,184	-0,503	0,605	-1,192	0,304
Occupation						
Not working	reference category					
Agriculture	-0,037**	0,963	0,056**	1,057	-0,093	0,911
Others	0,107	1,113	0,208	1,232	-0,102	0,903
Wealth quintiles						
Q1	reference category					
Q2	0,371	1,449	0,102	1,107	0,269	1,308
Q3	0,425	1,530	0,161	1,175	0,264	1,302
Q4	0,484	1,623	0,267	1,306	0,218	1,243
Q5	0,485	1,624	0,225	1,252	0,260	1,297
Husband's desire to have children						
Do not have a husband	reference category					
Equal	0,200	1,221	0,365	1,441	-0,166	0,847
Others	-0,769	0,463	-0,470	0,625	-0,300	0,741
Constanta	0,822	2,231	0,173	1,189	0,629	1,876

Note
*** *p<0.01, ** p<0.05, * p<0.1*

Table 4. Multinomial Logistic Regression Results Based on Odds Ratio of Internet Use and Ideal Number of Children According to Childbearing-Aged Women That Are Married in Indonesia

Characteristics	Ideal Number of Children (Number of Children Wanted)					
	0-2 to ≥5 or non-numeric		3-4		0-2 to 3-4	
	β	Odds Ratio	β	Odds Ratio	β	Odds Ratio
Internet Usage	0,149	1,160	0,110	1,116	0,039**	1,039
Read About Family Planning From The Internet	0,197	1,218	0,213	1,237	-0,015**	0,985
Age						
15-24	reference category					
25-34	-0,137	0,872	-0,036**	0,965	-0,101	0,904
35-49	-0,186	0,831	-0,331	0,718	0,146	1,157
Residential Area						
Urban	0,187	1,206	0,082	1,085	0,105	1,111
Rural	reference category					
Education Level						
Do not go to school and primary school	reference category					
Middle school	0,354	1,425	0,247	1,280	0,107	1,113
High school and above	-0,069	0,934	0,284	1,328	-0,353	0,703
Number of living children						
0	reference category					
1	0,678	1,971	0,402	1,494	0,277	1,319
2	0,405	1,500	0,323	1,382	0,082**	1,085
3	-0,644	0,525	0,205	1,228	-0,849	0,428
≥4	-1,592	0,203	-0,556	0,574	-1,036	0,355
Occupation						
Not working	reference category					

Agriculture	-0,006**	0,994	-0,005**	0,995	-0,001**	0,999
Others	0,108	1,114	0,120	1,127	-0,012**	0,989
Wealth quintiles						
Q1			reference category			
Q2	0,412	1,509	0,117	1,124	0,294	1,342
Q3	0,479	1,614	0,157	1,170	0,322	1,380
Q4	0,568	1,764	0,293	1,340	0,275	1,316
Q5	0,572	1,771	0,270	1,310	0,302	1,352
Husband's desire to have children						
Do not have a husband			reference category			
Equal	0,201	1,223	0,347	1,415	-0,146	0,864
Others	-0,760	0,468	-0,479	0,619	-0,280	0,755
Constanta	0,810	2,248	0,531	1,700	0,279	1,322

Note
*** $p<0.01$, ** $p<0.05$, * $p<0.1$

The internet has quickly become the main tool for finding health information (Rice and Katz, 2001; Webb et al., 2010), including fertility and family planning (Epstein and Rosenberg, 2005; Daniluk and Koert, 2013). With the use of the internet, various information and perspectives from all over the world can be accepted and implemented in a person so that they want to have a certain number of children. With this information, internet users will have more knowledge so that they can think or determine how many children they want or think are ideal, not just surrender everything to God.

Based on the regression results in Tables 3 and 4, the entire sample model of women of childbearing age and the sub-sample of women of childbearing age who are currently married have similar results, those who have used the internet have a higher tendency to want to have fewer children than those who never used the internet.

The internet has become more accessible over time, providing information to a large population. Governments around the world are taking advantage of the internet as a medium for disseminating information about family planning and contraceptive tools using websites. Research conducted by Nelson (2013) shows that Brazilians who have internet access are relatively more exposed to family planning, sexual health, and fertility knowledge than those without internet access. Community exposure to information related to family planning can then influence the desired number of children. The same thing happened to women in Pakistan. Based on the results of research conducted by Khan and Bari (2015), the media can change behavior by providing new information or choices and can form the identity of the audience who receives it.

In addition, the internet also provides convenience in the form of reducing costs for finding information (for example: finding a partner, effective and inexpensive contraceptives, how to educate children, and the costs and benefits of having children) (Guldi et al., 2017). Based on the regression results, the use of the internet has an influence on a person's desire to have a certain number of children. Women who never accessed the internet tended to fall into the group who wanted more than five children and gave non-numerical responses.

More evidence that Internet use can affect fertility was reported by Bocconi University in 2019. The Internet has been shown to increase the number of children born to highly educated women in Germany. The Internet also has a positive effect on overall satisfaction and time spent with children on weekdays.

Since the internet expands and then increases economic activity, additional income (assuming children are a normal good) can increase the number of pregnancies that lead to births. At the same time, this can increase the opportunity cost of having a child and thus reduce the number of pregnancies that lead to birth. (Rindfuss et al., 1996; Martin 2000; Adsera 2004; Blossfeld et al., 2005; Kravdal and Rindfuss 2008; Pailhe´ and Solaz 2012). According to Becker (1960), when income increases with economic growth, the demand for quality children increases the shadow price of children and then reduces the number of children desired.

Furthermore, women of childbearing age who have read information about family planning via the internet have a higher tendency to want to have fewer children than those who have never read information about family planning via the internet. Based on the regression results, the entire sample of women of childbearing age and the sub-sample of women of childbearing age who are currently married have similar results. These results are consistent with the government's goal in 2017, which is to reduce the total birth rate. Since 2016, The National Population and Family Planning Board (BKKBN) has targeted the poor, densely populated urban areas, fishing villages, slum areas, and other underdeveloped areas to have an awareness of the importance of the quality of children compared to the number of children. This is done to implement quality human development.

The results obtained from this regression indicate that the internet has an important role in disseminating information, especially information about family planning. Women who read about family planning on the internet tended to want to have fewer children and did not give non-numerical responses. Webb et al. (2010) found that online interventions can positively influence a person's health behavior, this is also supported by the results of a study conducted by Wojcieszek and Thompson (2013) which found that there was a significant increase in knowledge about family planning after an online intervention.

The provision of information about family planning online via the internet has been proven to affect the way of thinking and behavior of population fertility in several countries. Providing information via the internet is more effective in changing the way people think than the traditional way because of the convenience provided by the internet. The empirical evidence of this statement is proven by the research results of Daniluk and Koert (2015). After reading articles on fertility and family planning via the internet, the knowledge about fertility and beliefs about fertility that exist in Canadian communities can change.

Based on recent research, low birth rates are thought to occur due to a lack of knowledge about fertility. Japanese citizens have lower knowledge of fertility compared to other developed countries, this could be one of the reasons why Japan has a low birth rate (Maeda et al., 2015). Interest in having children has a strong association with knowledge of fertility. Therefore, to prevent childlessness due to a lack of information on fertility, people who are not interested in having children need

to know the facts about fertility. There needs to be an increase in fertility education interventions from reliable sources that can be disseminated via the internet because often the information provided by the internet is inaccurate.

5. CONCLUSION

The results of the inferential analysis show that internet use and socioeconomic characteristics influence the ideal number of children or the number of children desired by women of childbearing age. Some factors are not proven to be statistically significant in affecting the overall infertility of women of childbearing age, which is employment in agriculture. For the ideal number of children of women of childbearing age who are married, factors that are not proven to be statistically significant are the use of the internet and reading family planning information through the internet, employment in agriculture, and higher education.

Women aged 15-49 who have used the internet are more likely to want to have fewer children and do not answer non-numerically than those who never use the internet. Those who have read information about family planning via the internet have a higher tendency to want to have fewer children and do not answer non-numerically than those who have never read information about family planning through the internet. The socioeconomic conditions that women have also cause them to be more likely to want to have fewer children and not answer non-numerically. The socioeconomic conditions that cause this are those who live in urban areas, have secondary and higher education, have relatively few children, work (both in agriculture and other fields), wealth level, and their husbands have the same desire for the number of children.

The internet is proven to affect the ideal number of children for women of childbearing age in Indonesia. Therefore, to achieve the objectives of the RPJMN, it is necessary to pay attention to strategies that can control the ideal number of children, such as using the internet as a medium to educate the public, especially in terms of fertility and family planning. The government can raise awareness through the internet more intensively about the dangers that can arise when the fertility rate is too far from the figure of 2.1. It is hoped that with education through the internet, the public will be more aware of other fertility and population problems so that government plans can be achieved.

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