

# Manuscript submission

jurnal



**junaidi chaniago** <junaidi@unja.ac.id>

Thu, Nov 23, 2017,  
1:52 PM

to editor

Dear Editor,

I am pleased to submit my manuscript for Innovative Issues and Approaches in Social Sciences with the title " Determinants of Early Marriage and Model of Maturing Marriage Age Policy: Case in Jambi Province, Indonesia.

Thank you for your time and reviews

Best Regards

--

**Junaidi**

# Article CHECK

Inbox



**editor@iass.com**

Tue, Jan 2, 2018,  
9:58 PM

to mateja.gorenc, ursa.mars, sasa.zupan, bojan.radej, me, mfaruquddin, andrej.kovacic, aleksa

Dear Authors,

Congratulations, your article will soon be published in IIASS – On the 31. January 2018.  
Please check your article again:

- Check comments in the text
- If something is missing
- Check spelling – Again !
- Check layout
- Check author affiliations

Please send me your final version, as soon as possible but latest until Friday 12th of January.

Best regards,

Andrej Kovacic

# DETERMINANTS OF EARLY MARRIAGE AND MODEL OF MATURING MARRIAGE AGE POLICY: CASE IN JAMBI PROVINCE, INDONESIA

Hardiani Hardiani<sup>1</sup>; [Junaidi, Junaidi ?](#)

Commented [A1]: Name Surname affiliation in the footnote

## Abstract

This study aims to: 1) analyze socio-economic and cultural factors that affect early marriages in Jambi Province, Indonesia; 2) formulate a model of maturing marriage age policy in Jambi Province, Indonesia. The units of analysis are women in couples of reproductive age. Questioners for female respondents in couples of reproductive age were used as primary data collection instrument. The other instruments are structured interview to stakeholder and in-depth interview, sound recording devices and camera to do in-depth interview with selected informants. Analysis tool that is used are binary logistic model, and interpretive structural modeling (ISM), a quantitative model of policy making. We find that 1) Socio-economic factors affecting women's decision to get married early are their educational attainment; their knowledge of family planning, maturing marriage age, and reproductive health; their main activity (employed or unemployed); educational attainment, main activity (employed or unemployed), and ethnic group of their parents; 2) The appropriate model for maturing marriage age policy in Jambi Province is a model where it takes into six main elements of system. Those components are objectives, institutions, needs, constraints/obstacles, community involvement, and assessment benchmarks. Through the main sub-elements of the model, we are able to recommend three policy strategies: 1) program development strategy; 2) institutional development and implementation regulation strategy; 3) financing strategy.

Commented [A2]: Shorten the abstract to 100 words. Do not use numbers 1)..

Key words: age at first marriage, early marriage, maturing marriage age; reproductive health

---

<sup>1</sup> Economic Development Department, Faculty of Economics and Business, [University of Jambi](#), Indonesia  
Correspondence e-mail: [junaidi@unja.ac.id](mailto:junaidi@unja.ac.id)

## **Introduction**

Jambi Province is one of regions in Indonesia that has relatively high population growth. A mid the time of 2000-2010, the population growth rate of Jambi Province has reached 2.55 percent per year, generally higher than national average which is 1.49 percent per year.

There are three components of population growth. Those are fertility, mortality, and migration. However, in the context of policies and efforts to reduce population growth rate in a region, fertility is the most decisive and most likely to be implemented. Referring to Annual Population Census 2010, total fertility rate (TFR) of Jambi Province was 2.51, higher than national's rate (2.41). Amid the time of evaluation from 1971-2010, it showed that TFR of Jambi Province was constantly higher than national average (BPS, 2014).

High fertility in Jambi Province is caused by several factors. Low median age at first marriage in this region turns into the dominant factor. According to Survei Demografi dan Kesehatan Indonesia (SDKI) or Indonesia Demographic and Health Survey (IDHS) in 2012, median age at first marriage in Jambi Province was 19,3 years old, placed Jambi Province into the second lowest of 33 provinces in Indonesia. The median age at first marriage has indeed increased compared to its median age in 2002 (SDKI 2002), 18,8 years old, and in 2007 (SDKI 2007), 19,1 years old. However, the increase in median age at first marriage in Jambi Province is moderately slower than other provinces in Indonesia. Median age at first marriage in Indonesia has increased to 1,2 years in last ten years (19,2 years old in 2002 and 20,4 years old in 2012), on the contrary, in Jambi Province it has increased only 0,3 years (BKKBN, 2014).

Low median age at first marriage is caused by its large proportion of early marriage in Jambi Province. According to the data from Susenas in 2015, more than a third (39,82%) of total female in couple of childbearing age were married at young age (under 20 years old). It has an impact to the large number of pregnancies at an early age in Jambi Province. The 2012 SDKI data shows that ASFR for 15-19 years old has come to 75, which is higher than national rate of 48 (BKKBN, 2014). Pregnancy at an early age has several risks affecting the increase of maternal mortality rate and infant mortality rate, and the decline of women's reproductive health. UNICEF (2007) noted that early marriage has also profound physical, intellectual psychological impacts on young

girls affected. Therefore, besides impacting on high fertility, low median age at first marriage will affect other aspects related to population and family in Jambi Province.

It is important to study about the factors affecting early marriage and to formulate the appropriate model of policy in order to make an increase in median age at first marriage in Jambi Province. Based on the explanation above, this study specifically aims to: 1) analyze the socio-economic and cultural characteristics of women marrying in young age; 2) analyze the effect of social, economic, and cultural factors on early marriage in Jambi Province; 3) formulate a model of policy on maturing marriage age in Jambi Province.

This paper is divided into several sections. The first section is an introduction that outlines the importance and purpose of the study. The second section is the literature review, which aims to find the factors affecting age at first marriage theoretically and also based on the results of previous studies. The third section is a research method that describes the population, the sample, the data and data collection, and its analytical instruments. The fourth section is the result and discussion. It describes the social, economic, and cultural characteristics : comparison between women early and mature marriages; second subsection is factors affecting the age at first marriage and third subsection is the policy-making for maturing marriage age. The last section of this paper is the conclusions and implications of the results of this study.

### **Literature review**

Harton and Chester (2004) said that marriage is an approved social pattern in which at least two individuals form a family. Russel (1958) says that "marriage differs, of course, from other sex relations by the fact that it is a legal institution. It is also in most communities a religious institution, but it is the legal aspect which is essential". In Indonesia, referring to Law No. 1 Year 1974 in regards to marriage states that marriage is "physical and spiritual bond between a man and a woman as a couple with the objective of forming a happy and everlasting family in the name of God".

Age at first marriage is the age at which woman first legally and biologically married. The concept of age at first marriage came up when Bogue (1969) introduced the grouping of age at first marriage in four classifications: 1) Age at first marriage under 18 years old, called child

marriage; 2) Age at first marriage at 18 – 19 years old, called early marriage; 3) Age at first marriage 20 – 21 years old, called marriage at maturity; 4) Age at first marriage above 22 years old, called late age at marriage.

Furthermore, UNFPA (2014) defines early marriage as “any marriage carried out below the age of 18, before the girl is physically, physiologically, and psychologically ready to shoulder the responsibilities of marriage and childbearing.” UNICEF (2005) characterizes early marriage as marriage carried out below the age of 18.

Some governmental organizations in Indonesia, such as National Commission of Women (*Komnas Perempuan*), and National Family Planning Board (*Badan Koordinasi Keluarga Berencana Nasional / BKKBN*), also stated that the minimum age considered to be mature enough to marry is 21 years old. Based on these considerations, in this study, early marriage is defined as a marriage carried out by woman under 20 years old.

The decision to carry out a marriage is affected by several social, economic, and cultural factors whether it is from individuals, families, and/or community as whole. Theoretically, those factors are:

#### **Education**

The higher one's educational attainment, the more knowledge he/she gets and comprehends, including all information about reproductive health, best marriage age, and the effect of having an early marriage. Though if one's educational attainment is low then there will be disconnection of knowledge and information and also less teen activities. Meltem et al. (2009) argued that the higher one's preference to study, the later he/she will get married. In accordance to that, Jin et al. (2005) explained that education has a very important role to rise the age at first marriage by looking at the institutional effect of education itself

Parents' educational attainment also has a relation to early marriage. Young adults with highly educated parents enter their first marriage (Sassler et al. [2009](#); Uecker and Stokes [2008](#)) at a later age than young adults with relatively low-educated parents. The role of parents to the continuity of early marriage is basically inseparable to their knowledge linked to their educational attainment. In addition, parent's educational attainment will influence their comprehension about better family life. Parents with less understanding on family life see it will create better

relationship, so they think marriage that is done earlier is the best solution.

#### **Main Activity (Employed or Unemployed)**

Getting employed will have an effect to woman's age at first marriage (Assad and Sami, 2003). Proponents of 'new home economics theory' hypothesize that, women's growing economic independence largely accounts for the rise in delayed marriage in industrialized societies (Blossfeld, 1995). Okech et al. (2011) explained that getting employed or unemployed will influence woman in determining her marriage age. Modernization theory argues that work opportunities (also education) cause the postponement of marriage among women (Ochieng, 2016). Marriage requires well-preparation, especially in financial, so that in an effort to get a job, it will increase their age of marriage either directly or indirectly. Therefore, it is not only individual's employment status affecting their decision to postpone marriage but also their parents' employment status does.

#### **Economic Situation / Financial State**

One of the factors that make parents to marry off their children at young age in developing countries is poverty. Early marriage is more frequent among the poorest families (Hossain & Islam, 2013; Hoq 2013; Parsons et al. 2015). Poverty is denoted as both a cause and a consequence of early marriage (Maharjan et al. 2012). They (parents) think that girls are an economic burden and marriage turns into an attempt to maintain their economic situation. In rural communities, early marriage occurs primarily in lower and middle-income families, which is more as a social form of division of roles and responsibilities from female's family to the husband

#### **Culture and customs**

The norms prevailing in society often encourage individual's motivation to behave and make decisions. Related to early marriage, Jackson and Smith (1999) expressed that an interrelated belief, that is, norms and group values, leads to early marriage behavior. Culture has been used to explain ethnic differences in the timing of marriage and childbirth (Ikamari and Towett, 2007) and cultural tradition is a powerful force in early marriage.

Pujiastuti in Hanum (1997) explained that the custom of early marriage in Javanese society is roused by strong influence of parents that many

women who are in their teens have been married. It is related to the existing culture within the community where parents will marry off their children soon after getting first menstruation. The delay in marrying off their daughter may bring a disgrace to parents and relatives.

### **Empirical Review**

The studies found that there are several socio-economic and cultural factors affecting early marriage. Puspitasari (2006) found the factors affecting early marriages in West Java Province, Indonesia. Those factors are poverty, self-factor either because of self-willing or films' or other media's impact, low education attainment of parents, and hereditary tradition. Envuladu et al. (2016) found that in Nigeria, parents' low level of education, poverty, religion and place of residence were significant determining factors of early marriage in Plateau State. Family pressure and lack of finance for education were also key reasons for engaging in early marriage among the girls

Kim Choe (2005) found that, in Nepal, three important factors associated with early marriage are women's education, region of residence and ethnicity. Raymo (2003), assessed the impact of education on marriage in Japan and observed that educated girls were inclined to delay the timing of marriage because of employment opportunities. Similarly, Ekawati (2008) found that early marriages in West Jawa Province, Indonesia were influenced by women's education and family income. The proportion of adolescent marriage declined in higher education levels, of which 90 percent of adolescent marriages occurred among those who don't go to school and 24 percent among those who graduated from junior high school or above. Furthermore, 83 percent of women in poor families married in their teens, much higher than those in wealthy families (46 percent).

The influence of customs is found in a study conducted by Nasrullah et al. (2014) in their research in the urban slums of Lahore, Pakistan. Strong influence of culture and community perceptions, varying interpretation of religion, and protecting family honor are some of the factors that may play role in the continuation of child marriage practice in Pakistan. Similar results were also found by Sandhu and Geethalaksmi (2017) in Davangere, India, revealed that besides poor socio-economic status being the major determinant (62%) for early marriages, 35% of mothers got married early due to cultural reasons which included religious and familial influences. Kamal et al. (2015), in their research in Bangladesh



found that the variables identified as important determinants of child marriage are: education of women and their husbands, and women's occupation, place of residence and religion. Similar results were also found by Workineh et al. (2015) in Northwest Ethiopia. variables like residence, family monthly income, perceived ideal marital age, knowledge of legal marital age and knowing someone who was accused of early marriage crime were independent determinants of early marriage practice

### **Research methods**

#### **Data Types and Sources**

This study used primary data from survey. There are two types of primary data. Those are primary data from female respondents in couples of reproductive age and from relevant stakeholders. Stakeholders who were interviewed are officials at Regional Development Planning Board or *Badan Perencanaan Pembangunan Daerah* (BAPPEDA) specifically in Socio-Cultural sector, demographic and women's empowerment institutions, and institutions related to religious affairs. Secondary data are also used other than primary data.

#### **Populations and Samples**

Populations: all women ever married at the age of 15 – 49 in Jambi Province, both of those who did first marriage in early age and as adult.

Sampling method: double sampling for stratification:

First phase/stage, choosing villages and urban communities which are being research locations. Selecting with purposive sampling with an approach as follows:

From 11 regencies/cities in Jambi Province, we chose three regencies. Those are Bungo Regency, Merangin Regency, and Tebo Regency. These regencies were chosen because they have the largest proportion of early marriage among other regencies/cities in Jambi Province (Susenas, 2015).

From each selected regency, we chose three research locations as follows:

One urban community/village in the sub-district that became the capital of regency. The selection of the village is based on the consideration of village with the largest number of early marriages.

One urban community and one village in another sub-district with the largest number of early marriage. From the selected sub-district, two

locations are chosen; 1) an urban community and; 2) one of the villages selected at random.

Second phase/stage, choosing 25 women who have been married at the age of 15 – 49 from each selected urban community/village. The total number of selected urban community/village is 9 urban communities/villages so the samples are 225 respondents. Sampling by proportional random sampling with steps:

Making a list or listing women who have been married at the age of 15 – 49 from each selected urban community/village and their age at first marriage.

Based on the listing of women who have been married at the age of 15 – 49, target population is categorized in two: 1) women married at the age of 15 – 49 who got married early; 2) women married at the age of 15 – 49 who got married late.

Randomly selecting 25 women who have been married at the age of 15 – 49, proportionate to the target population (women who have been married at the age of 15 – 49) between women married at young age and women married late / at an adult age.

### **Data Collection Instruments**

Data collection instruments in this study consist of: 1) Questionnaires for women who have been married at the age of 15 – 49, containing questions related to individual (respondent), their parents, and family characteristics; 2) Structured questionnaires for stakeholder, containing questions related to stakeholder's opinion on early marriage phenomenon and various policy strategies to rise the age at first marriage (maturing married age policy).

## Analysis Methods

### Descriptive Statistics

Descriptive statistics were used to analyze social, economic, and cultural characteristics of individuals getting married at a young age.

### Inferential Statistics

In multivariate analysis, binary logistic regression model was used as following:

$$g(x_{ki}) = \beta_0 + \beta_{1.D1} X_{1.D1} + \beta_{1.D2} X_{1.D2} + \beta_{1.D3} X_{1.D3} + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_{5.D2} X_{5.D2} + \beta_{5.D3} X_{5.D3} + \beta_6 X_6 + \beta_{7.D1} X_{7.D1} + \beta_{7.D2} X_{7.D2} + \beta_8 X_8 + \beta_9 X_9 + \beta_{10} X_{10} + \beta_{11.D1} X_{11.D1} + \beta_{11.D2} X_{11.D2} + e$$

Commented [A3]: Reformat to fit the width

where:

$$g(x_{ki}) = \ln \frac{P(x_i)}{1 - P(x_i)} = \text{logit} = \text{log ratio between chances of marriage at}$$

young age and chances of marriage at an adult age (0 = marriage at an adult age; 1 = early marriage / marriage at young age)

X1 = Formal education of female respondent. This variable is formulated into three dummy variables with No Education/Primary School Dropout as base category.

X1.D1 1 = Primary School; 0 = other

X1.D2 1 = Junior High School; 0 = other

X1.D3 1 = Senior High School or above; 0 = other

X2 = Knowledge of female respondent on family planning, maturing marriage age, and reproductive health (on a scale of 0 – 100)

X3 = Main activity (employed or unemployed) of female respondent before married (0=unemployed; 1=employed)

X4 = Main activity (employed or unemployed) of fiancé (husband) before married (0=unemployed; 1=employed)

X5 = Educational attainment of respondent's father or mother. In three dummy variables with No Schooling/Primary School Dropout as base category.

X5.D1 1 = Primary School; 0 = other

X5.D2 1 = Junior High School; 0 = other

X5.D3 1 = Senior High School or above; 0 = other

X6 = Main activity (employed or unemployed) of female respondent's parents (in dummy variables where: 0 = father or mother is unemployed; 1 = father or mother is employed)

X7 = Ethnic group or place of origin of female respondent's parents categorized into 3 groups, those are Jambi Malay, Javanese, or other ethnic groups. This variable is formulated into two dummy variables with Jambi Malay as base category.

X7.D1 1 = Javanese; 0=other

X7.D2 1 = other ethnic groups (including multi-ethnic); 0=other

X8 = Total number of household members.

X9 = Proportion of household members who are employed to total number of household members.

X10 = Location (village or city) (in dummy variables where: 0 = village; 1 = city)

X11 = Regency, in two dummy variables with Tebo Regency as base category.

X11.D1 1 = Bungo Regency; 0=other

X11.D2 1 = Merangin Regency; 0=other

### ***Quantitative Model of Policy Making***

To make this model of policy, the following steps are carried out:

Collecting expert opinion, especially management experts and public policy experts to determine the elements and sub-elements of model of policy related to a system in order to achieve the objective of maturing marriage age.

The results of the first phase are used as the basis for developing questionnaire instruments for structured interviews with related stakeholders especially in the field of social development planning, population, and religious affair.

Structured interview questionnaires are used to collect assessments from stakeholders in the context of correlation between sub-elements.

The results of structured interviews with stakeholders are analyzed through Interpretive Structural Modeling (ISM).

Based on the analysis through ISM, the model of maturing marriage age policy is formulated in model system kind of form.

## **Results and discussion**

Characteristics of Social, Economic, and Culture: comparison between women Early and Mature Marriages in Jambi Province.

### **Individual Characteristics**

Individual characteristics include education, knowledge of Family Planning, Maturing Marriage Age, and Reproductive Health, and also main activity (employed or unemployed).

#### **Education**

Education is one of factors affecting a person's decisions in their life. The higher the education the higher the ability of person on making better decisions. Low educational attainment or no schooling will encourage women to get married early. On the other hand, for women, higher educational attainment can provide better career opportunities and be a push factor to delay getting married early.

This research found that educational attainment of women getting married early is relatively low. Almost two-thirds (65.14 percent) of them have completed less primary or primary education and only 4.59 percent have completed senior high school education and tertiary education (Diploma and Bachelor). It is different from women who married at an adult age. Although there are 29.31 percent of them have completed only less primary or primary education, more than half (56.90 percent) of them have completed senior high school education and tertiary education (university).

The low level of educational attainment is basically the impact of family poverty. It could be seen from the results of in-depth interviews with a parent: "due to their inadequate family income, he isn't able to afford paying his children's tuition fees on higher education and when someone proposes his daughter, he immediately approves."

#### **Knowledge about Family Planning, Maturing marriage age (MMA) and Reproductive Health**

Beside formal education, women's knowledge to family planning, maturing marriage age, and reproductive health allegedly also contributes to the decision to marry early or at adult age. The assessment of this knowledge is done by asking various questions including women's knowledge before marriage about the purpose of family planning, family planning methods (contraception methods), places offering family planning services, fertile period, best age to get married, minimum and maximum "safe" age to give birth, early marriage impacts, knowledge on

HIV, AID, and STIs, also Drugs. The range is between 0 and 100, from having no knowledge at all to knowing all of that.

On average, knowledge of women before marriage about family planning and family welfare or *Keluarga Berencana dan Keluarga Sejahtera* (KBKS), Maturing Marriage Age (MMA), and reproductive health is still low, with an average score of 33.64. In other words, women's knowledge on the things mentioned earlier is only about one-third of the maximum score of 100.

This research also found that women getting married early have less knowledge about those things than women getting married at an adult age. The average score of knowledge of women getting married early is 23.01. From its frequency distribution, it shows that almost two-thirds (63.30 percent) of women getting married at young age have knowledge score less than 25, and only 3.67 percent have knowledge score above 50.

It is different compared to women who married at an adult age. The average score of knowledge reached 41.69 or almost twice the knowledge score of women getting married early. From the frequency distribution, it shows that only 23.28 percent of them have knowledge score less than 25 and almost a third (30.17 percent) has the score above 50.

#### **Main Activity before Marriage (Employed/Unemployed)**

The status of employment in a society indicates the economic situation of community. The easiness of getting job or having job openings is an economic indicator of a region. Status of employment of a woman can bring the decision to postpone marriage. In relation to women's job opportunities, it appears that in general it's relatively low. The study found that women who worked before marriage is lower than 10 percent and most of them were unemployed (domestic affairs, finding job, etc as their main activity). In general, it also shows that job opportunities for women in Jambi Province are still relatively limited.

Although it's relatively small, it is seen that there is a marked difference in status of employment between women getting married early and those who married at an adult age. Only 2.75 percent of women getting married early were working before marriage, whereas for those who married at an adult age reached 14.66 percent. The chi-square test also shows that there was a statistically significant correlation between main activity and age at first marriage (with Sig.=0,002).

### **Characteristics of Parents and Family**

Characteristics of parents and family that are being analyzed include educational attainment of parents, main activity of parents and relatives/family, ethnic group of parents, and number of family members.

Education. The role of parents to the early marriage is basically inseparable from their educational attainment. Low level of educational attainment of parents will encourage a decision to immediately marry off their children despite being underage. This is related to the low understanding and less knowledge of parents on the concept of adolescent girls and the negative impact of early marriage.

This research also found that the educational attainment of fathers of women getting married early is relatively low. Only 4.59 percent of fathers of women getting married early have graduated from senior high school and university. While it is five times higher in the proportion of fathers of women getting married at an adult age, that is 22.41 percent. In contrast, only 11.21 percent of women married at an adult age have fathers with no schooling/less primary education, whereas there is 27.52 percent of women married early have fathers with no schooling/less primary education.

### **Main Activity of Parents and Household Members**

Main activity of parents is one of indicators to see financial condition of the family. Families with working parents will have better economic status than those with unemployed parents. Therefore, daughters in families with unemployed parents are at greater risk of marriage at an earlier age than those having working parents.

In-depth interviews with parents and community leaders at research site found that parents' decision to marry off their girls at an early age due to their inability to provide higher education for their daughter, beside it's done for reducing economic burden. Sometimes the daughter herself initiates to get married because she wants reducing economic burden of her parents.

This research shows that 23.85 percent of women getting married early come from families with unemployed parents (fathers and mothers). Unemployed parents in this study means that they are not working permanently or don't have permanent job, so there is no guaranteed income to meet family needs. This proportion is more than three times

higher compared to women getting married at an adult age (only 7.76 percent).

The tendency to marry off young daughter to these low-income families was revealed by one of the parent's statement. "I am a farm laborer and have no land of my own. I rarely have works. I have to marry off my daughter in order to reduce my burden, in the hope that my daughter's husband can help my family".

Beside main activity of parents, the number of working household members can also be used as an indicator of the financial condition of the family. Based on that, this research shows that the average proportion of working household members in women getting married at an adult age tends to be higher than in those getting married early.

**Ethnic Group of Parents.** Ethnic group of parents is basically a picture of norms, values, and beliefs shared in the family. Therefore, it can be used as a cultural indicator of family that influences the decision of family to marry off their daughter at a young age or at an adult age. As Pujiastuti pointed out in Hanum (1997) that the custom of child marriage in Javanese society is roused by the strong influence of parents so that many women who are in their teens have been married.

More than half (51.11 percent) of the parents' ethnic group are Jambi Malay, followed by Javanese (36.00 percent) and others (Minangkabau, Batak, and Bugis) with a relatively small proportion (12.89 percent). The large proportion of Javanese is due to three research sites are main areas of migrants in Jambi Province. The placement of migrants in these three regencies has been going on for quite some time, from 1940 through the colonization program. Today migrant residents (especially their descendants) are not only settled in former transmigration areas, but also in the outer regions.

Furthermore, based on the categories of age at first marriage, Jambi Malay parents tend to marry off their daughters at an early age compared to the Javanese parents and parents from other ethnic groups. 65.14 percent of women getting married early have Jambi Malay parents, followed by Javanese parents of 31.19 percent and other ethnic groups of 3.67 percent.



Number of Household Members. Some previous study indicate that the number of household members is related to the decision if the family in marrying off their child. Families with many household members tend to marry off their children at a relatively young age, in order to reduce the burden of family. Nevertheless, this study didn't find the same. Based on this research, there is no difference in the number of household members between women getting married early and at an adult age

**Determinant of Early Marriage**

Overall Model Fit Test is given in Table 1. Based on Omnibus Test of Model Coefficients, it's obtained Chi\_Square value of 149.653 with significance (p) = 0.000. Thus it is concluded that independent variables affect the decisions and behavior of women getting married early or at an adult age. Based on Hosmer and Lemeshow test, Chi-Square value is 9.170 with p value = 0,328. Because Chi\_Square is not significant (p>0.05), it can be concluded that predicted probability is matched to observed probability.

Table 1 Overall Model Fit Test for Early Marriage model

	Chi-square	df	Sig.
<i>Omnibus Test of Model Coefficients</i>	149,653	17	.000
<i>Hosmer and Lemeshow Test</i>	9.170	8	.328

The estimation of model coefficients and partial hypothesis testing of the model is given in Table 2. In relation to education at the time of marriage, there is no difference in the chances of marriage at young or adult age between primary school graduates (X1.D1) and junior high school graduates (X1.D2), and women who got no schooling or didn't graduate from primary school. However, the coefficient of senior high school graduates (X1.D3) is negatively significant. It shows that women with higher education have a lower chance of doing early marriage than those who got no schooling or didn't graduate from primary school. The odd ratio shows that women with higher education have a probability of 0.045 times lower to do early marriage than those who got no schooling or didn't graduate from primary school.

Furthermore, their knowledge about Family Planning, Maturing Marriage Age and Reproductive Health (X2) also shows negatively significant effect. Women with more knowledge of those things will have lower probability doing early marriage.

Working women tend to postpone their marriage (a significant negative X3 coefficient). They have a chance of 0.201 times lower to do early marriage than those who are not working. Nevertheless, there is no significant difference on main activity of future husbands.

There is no difference in the probability of getting married early or at an adult age between women with primary school graduate (X5.D1) and junior high school graduate (X5.D2) parents, and those with no schooling/primary school dropout parents. However, for senior high school and above (X5.D3), there is negatively significant difference. Women with high educated parents are 0.171 times more likely to do early marriage than women whose parents got no schooling or are primary school dropouts.

Tabel 2 Model Estimation

Commented [A4]: Fit width

Variabel	Koef.	S.E.	Wald	df	Sig.	Odds Ratio	Note
X1			18,317	3	,000		Educational Attainment of Respondents
X1.D1	,250	,717	,121	1	,728	1,284	Primary School
X1.D2	,333	,792	,177	1	,674	1,395	Junior High School
X1.D3	-3,097	1,042	8,835	1	,003	,045	Senior High School and Above
X2	-,059	,017	11,400	1	,001	,943	Knowledge about FP, MMA, and RH.
X3	-1,602	,969	2,732	1	,098	,201	Main Activity of Respondents
X4	-,307	,595	,266	1	,606	,735	Main Activity of Future Husbands
X5			6,769	3	,080		Educational Attainment of Parents
X5.D1	-,128	,603	,045	1	,831	,879	Primary School
X5.D2	-1,076	,848	1,612	1	,204	,341	Junior High School
X5.D3	-1,765	,847	4,342	1	,037	,171	Senior High School and Above
X6	-1,377	,762	3,269	1	,071	,252	Main Activity of Parents
X7			9,713	2	,008		Ethnic Group of Parents
X7.D1	,852	,580	2,160	1	,142	2,345	Javanese
X7.D2	-2,081	,895	5,407	1	,020	,125	Others
X8	,098	,145	,460	1	,498	1,103	Number of Household Members
X9	-3,062	1,827	2,809	1	,094	,047	Working Household Members
X10	-,406	,491	,685	1	,408	,666	Rural-Urban
X11			17,172	2	,000		Regencies
X11.D1	2,118	,743	8,132	1	,004	8,312	Bungo Regency

X11.D2	,928	,589	2,476	1	,116	,396	Merangin Regency
Constanta	4,295	1,318	10,616	1	,001	73,362	

Women whose parents are working are 0.252 times lower to do early marriage than women with unemployed parents. Likewise, women who come from families with a large proportion of working household members are 0.047 times more likely to get married at young age than women from families with a smaller proportion of household members.

There is no difference in the chance of early marriage between Javanese and Jambi Malay groups, but there is a significant difference between other ethnic groups and Jambi Malay groups. Women whose parents are from other ethnic groups have 0.125 lower chance of early marriage than those with Jambi Malay parents.

There is no difference in early marriage tendency in urban and rural women as long as the socioeconomic characteristics of individuals and their families are relatively similar. Nevertheless, based on regencies, there is a difference in the chance of early marriage in Bungo Regency with Tebo Regency (with a higher chance of 8,312 times). In contrast, there is no difference in the chance of early marriage between Merangin Regency and Tebo Regency.

### **Maturing Marriage Age Model**

Based on stakeholder assessments and analysis conducted through ISM, Maturing Marriage Age program in Jambi Province should be structured in a unified system involving six main elements namely the establishment of strict objectives, the involvement of the right institutions, proper allocation to the needs, overcome major obstacles, and the involvement of influential large communities. Also, in evaluating activities, it is necessary to formulate the right benchmarks.

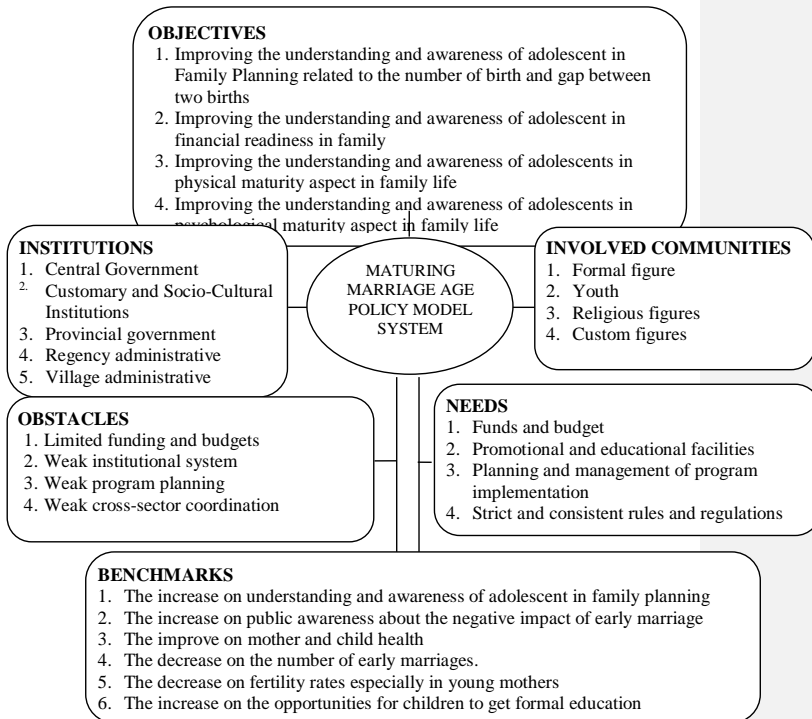
Furthermore, based on the structuring that has been done, the major sub-elements in formulating Maturing Marriage Age policy in Jambi Province have been identified. The main sub-elements in the development of MMA policy model in Jambi Province are given in Figure 1 below.

MMA will be well received by the community if the emphasis and socialization are directed to the five main objectives. Those five are 1)

Improving the understanding and awareness of adolescent in Family Planning related to the number of birth and gap between two births; 2) Improving the understanding and awareness of adolescents in financial readiness in family life; 3) Improving the understanding and awareness of adolescents in physical maturity aspect in family life 4) Improving the understanding and awareness of adolescents about psychological maturity aspect in family life; 5) Improving adolescent reproductive health.

Figure 1 Main Sub-Elements in the Development of MMA Policy Model in Jambi Province

Commented [A5]: Fit figure...



The achievement of these goals depends greatly on the involvement of key institutions with strong influence, namely central government, customary and socio-cultural institutions, regency and village administrative. Other institutions don't need to create separated programs but simply use the influence of these key institutions. To raise the role of other institutions (besides these five institutions) can be done through efforts fostering and developing cross-sector coordination.

Full involvement of these key institutions is currently constrained primarily by the limited funding and budgets of program, weak institutional system, weak program planning and weak cross-sector coordination in the implementation of maturing marriage age program.

Community involvement in program implementation is also a key factor for the success of the objectives. There are four groups of community who need to be given special attention because of their great influence on other community, namely formal figure, youth, religious and custom leaders.

In terms of program's needs, there are four key needs: funds and budget, promotional and educational facilities, planning and management of program implementation, also strict and consistent rules and regulations.

Furthermore, in this model, there are six main benchmarks that representatively can assess the success of the program: 1) The increase on understanding and awareness of adolescent in family planning; 2) The increase on public awareness about the negative impact of early marriage; 3) The improve on mother and child health; 4) The decrease on the number of early marriage; 5) The decrease on fertility rates especially in young mothers; 6) The increase on the opportunities for children to get formal education.

The development of MMA policy model in Jambi Province is recommended by taking into account the six main elements of the objectives, institutions, involved communities, constraints/obstacles, needs, and benchmarks of the activity. These six elements must be considered proportionally as a system to ensure the achievement of MMA policy objectives.

Furthermore, based on the relevance of the main sub-elements contained in each of those elements, it is recommended that three strategies of

MMA policy are 1) program development strategy; 2) institutional development and implementation regulation strategy; 3) financing strategy.

### **Program Development Strategy**

The program development strategy is a strategy further directing MMA policy on the five main objectives as mentioned before. Therefore, the forms of promotion, socialization and education, and other activities in MMA policy should be oriented to aspects directly related to the five main objectives.

### **Institutional Development and Implementation Regulation Strategy**

Institutional development and implementation regulation strategy covers the following aspects:

- The increase on the availability of facilities, especially for promotion, socialization, and education.
- The improvement on quality of planning and management of the implementation program.

In order to improve the quality of planning and management of the implementation of this program, it needs the database that is capable of mapping comprehensively the phenomenon of early marriage at the administrative level of village.

The improve on institutional system and on the quality of human resources in the field who are directly responsible for promotional activities, socialization, and education.

### **Cross-sector coordination enhancement**

In this coordination enhancement, it is necessary to establish an institution that becomes a forum. Not only institutional that becomes the member of this forum, but it is also involving communities that have major impact on the success of the program.

Facilitate the preparation of supporting rules and policies at the regency/city level that are in sync with provincial/national policies and regulations.

### **Financing Strategy**

The financing strategy is basically aimed at increasing the budget of MMA program, not only through sectoral budgets, but also by local budgets. This strategy can be run if the cooperation and mutual understanding between sectors/institutions have been established.

### **Conclusions, implications and limitations**

This study initiated by from the high fertility rate as a problem in Jambi Province, Indonesia, caused by the low median age at first marriage. In addition to the high fertility as the impact of it, low median age at first marriage also affects the number of pregnancies/births at a young age. It will then increase the maternal and infant mortality rate, and decrease women's reproductive health. Therefore, it is necessary to analyze the factors affecting age at first marriage in this province and the model of maturing marriage age policy.

The results of the study revealed that socio-economic and cultural factors that influence the decision of women getting married early or at an mature are individual's characteristics (education, knowledge of family planning, MMA, reproductive health and main activity), then the other characteristic namely parents characteristics that is main activity, educational background, and ethnic group.

The implications of the policy from these findings are the need of government efforts to improve the welfare of the community (especially in rural areas), improvement of education/knowledge and reconstruction of values in society towards the concept of marriage and better family life to reduce the phenomenon of marriage at young age. In practice, the policy should be based on three main strategies: 1) program development strategy; 2) institutional development and implementation regulation strategy; 3) financing strategy.

This study has analyzed various socio-economic and cultural factors at the individual (women and their husband) levels, parents and family of the women. However, there are many factors, especially the characteristics of women's parents, their family, and their prospective husbands that have yet to be analyzed/covered. It's due to the limitation for the respondents of this study, which is only to women in fertile couples. Therefore, for further researchers, it is advisable to expand the respondent category for the study, not only to women, but also to their husband and parents. In addition, it is also necessary to consider

cultural/environmental aspects as one of the factors affecting the age at first marriage.

## References

- Assad, R & Sami, Z. (2003). The Timing of Marriage, Fertility, and Female Labor Force Participation in Morocco. Proceeding of the Middle East Economic Association 5.
- BKKBN (2014). Angka Kelahiran Menurut Umur Jambi (The Birth Rate by Age in Jambi Province). Retrieved from <http://www.bkkbn.go.id>
- Blossfeld, H.P. (1995). The new role of women: family formation in modern societies. London: Westview Press
- Bogue, D J. (1969). Principles Of Demography. New York: John Wiley & Sons Inc.
- BPS (2014). Angka Fertilitas Total Menurut Provinsi (Total Fertility Rate by Province). Retrieved from <https://www.bps.go.id/>
- Ekawati, R. (2008). Faktor Karakteristik Keluarga, Tingkat Fertilitas dan Pemakaian Kontrasepsi (Family Characteristics, Fertility and Contraceptive Use). Jurnal Kependudukan Padjadjaran, Vol. 10 No. 2 Juli 2008
- Envuladu, E.A., Umaru, R.J., Iorapuu, N.O., Osagie, I.A., Okoh, E.O., and Zoakah, A. (2016). Determinants and effect of girl child marriage: a cross sectional study of school girls in Plateau State, Nigeria. International Journal of Medicine and Biomedical Research, 5(3), 122 - 129
- Hanum, S.H. (1997). Perkawinan Usia Belia. PPK UGM. Yogyakarta
- Harton, P.B. & Chester L. H. (2004). Sociology. India: McGraw Hill Education
- Hossain, M. and Islam, R. (2013). Effects of socio-economic and demographic variables on age at first marriage in Bangladesh. Current Research Journal of Biological Sciences, 5(4), pp.149-152.
- Parsons, J., Edmeades, J., Kes, A., Petroni, S., Sexton, M. and Wodon, Q. (2015) Economic impacts of child marriage: a review of the literature. The Review of Faith & International Affairs, 13(3), 12-22
- Maharjan, R.K., Karki, K.B., Shakyaa, T.M. and Aryal, B. (2012). Child marriage in Nepal: a research report. Kathmandu: Society for Integrated Local Development Nepal.
- Hoq, M.N. (2013) Regional differentials of age at first marriage among women in Bangladesh. Asian Journal of Applied Science and Engineering, 2 (2), 76-83
- Jackson, JW & E.R. Smith.(1999). Conceptualizing social identity: A new framework and evidence for the impact of different dimensions. Personality and Social Psychology Bulletin, 25(1), 120-135



- Jin, Xiaoyi, Li, S., and Feldman, M.W. 2005. Marriage Form and Age at First Marriage: A Comparative Study in Three Counties in Contemporary Rural China. *Soc Biol*, 52(1-2), 18-46
- Kamal, S.M., Hassan, C.H., Alam, G.M., and Ying, Y. J (2015). Child marriage in Bangladesh: trends and determinants. *Biosoc Sci.*, 47(1):120-39..
- Kim Choe, M., Thapa, S., and Mishra, V. (2005). Early Marriage and Early Motherhood in Nepal. *Journal of Biosocial Science*, 37(2), 143-162
- Meltem, D.T., Kirdar, M and Koc,I. (2009). The Impact of Schooling on the Timing of Marriage and Fertility: Evidence from a Change in Compulsory Schooling Law. Working Papers Series No.470 Economic Research Forum. Ankara: Middle East Technical University
- Nasrullah, M., Zakar, R., Zakar, M.Z., Abbas, S., Shaukat, M., and Kramer, A. (2014). Knowledge and attitude towards child marriage practice among women married as children-a qualitative study in urban slums of Lahore, Pakistan. *BMC Public Health*, 14(1148), 1- 7
- Ochieng, B. (2016). Determinants Of Early Marriage Among Young Women In Homa Bay County In Kenya. Thesis. Population Studies Of The University Of Nairobi: Nairobi
- Okech, T.C, Wawire, N.W., Mburu, T.K. (2011). Contraceptive Use among Women of Reproductive Age in Kenya's City Slums. *International Journal of Business and Social Science*, 2(1), 22-43
- Puspitasari, F. (2006). Perkawinan Muda: Faktor-Faktor Pendorong Dan Dampaknya Terhadap Pola Asuh Keluarga: Studi Kasus Di Desa Mandalagiri, Kecamatan Leuwisari, Kabupaten Tasikmalaya (EarlyMarriage: The Determinants And Its Impact On Family Pattern: Case Study In Mandalagiri Village, Leuwisari District, Tasikmalaya Regency.. Thesis. Fakultas Ilmu Sosial UNES. Semarang
- Raymo, J.N. (2003). Educational Attainment and Transition to First Marriage among Japanese Women. *Demography*, 40(1): 83-103.
- Russell, B. (1959). *Marriage and Morals*. New York: Bantom Books.
- Sandhu, N.K., Geethalakshmi, R.G. (2017). Determinants and impact of early marriage on mother and her newborn in an urban area of Davangere: a cross-sectional study. *Int J Community Med Public Health* 4(12),78-83.
- Sassler, S., Cunningham, A., Lichter, D.T. (2009). Intergenerational patterns of union formation and relationship quality. *Journal of Family*, 30:757–786.
- Sileshi Workineh, S., Kibretb, G.D., and Degu, G. (2015). Determinants of Early Marriage among Female Children in Sinan District, Northwest Ethiopia. *Health Science Journal* 9(6:1), 1- 7
- Uecker, J.E., Stokes, C.E. (2008). Early marriage in the United States. *Journal of Marriage and Family*, 70:835–846.

- UNFPA. (2014). Child Marriage: We Promote the Right of Both Married and Unmarried Girl. Retrieved from <http://www.endfistula.org/public/site/asiapacific/cache/offonce/pid/14891%3Bjsessionid=DAD47F1F8C704CE40982CE39F360A FB8.jahia02>
- UNICEF. (2005). Early Marriage A Harmful Traditional Practice: A Statistical Exploration. Washington DC:United Nations Children's Fund.
- UNICEF Report (2007): Solutions to end child marriage: International Centre for research on Women. Retrieved from [www.icrw.org/childmarriage](http://www.icrw.org/childmarriage).



