청년패널조사데이터를 활용한 결혼의도의 결정요인*

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Determinants of Marriage Intention for Korean Youth using Youth Panel Data

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Abstract

Purpose - The purpose of this research is to explore the determinants of marriage intention for Korean youth. Because Korean society is under the population decline, inspecting influential attributes become worthy.
Design/methodology/approach - This study employed Korean Youth panel data. The determinants of marriage intention include subjective health, leisure time, Schwabe index, culture recreation ratio, and Engel coefficient. This study performed binary logistic regression to test the hypotheses.
Findings - The results indicate that subjective health and leisure time positively impact on the likelihood of marriage intention. However, culture recreation ratio and Engel coefficient negatively affect the likelihood of marriage intention. Schwabe index exerts no significant effect on marriage intention.
Research implications or Originality - The results could become useful information to build policy to solve the population decline problem

Keywords: Youth panel, Marriage intention, Subjective health, Leisure time, Schwabe index, Engel coefficient
JEL Classifications: C12, C83, D40, L15

Ⅰ. Introduction

Korean youths have considered the marriage as unnecessary for life. According to Korea Herald (2018), Korean youths regard marriage as the choice rather than obligation, and only

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23.5 percent of youths responded the marriage as obligation in 2014 as compare to 28.9 percent in 2006. Indeed, Statistics Korea (2021) reported that marriage rate for males early 30s 10.3 percent decreased, while marriage rate for females late 20s 14.4 percent decreased in 2021. Plus, Statistics Korea (2023) documented that 0.4 percent of marriage ratewas decreased in 2022. It indicates that marriage rate has been decreased in Korean society, and it could become one reason for the decline of Korean population. Despite of the importance of marriage, extant literature insufficiently has studied marriage intention. Therefore, it is worthwhile to scrutinize the characteristics of marriage intention of youths. This study thus is to investigate the determinants of marriage intention of Korean youths. By doing so, this work contributes to the literature by affiliating the research gap in the area of marriage intention research.

This study is to present five attributes as the antecedents of marriage intention. Five attributes are subjective health, leisure time, and living cost related pieces: Schwabe index, culture recreation ratio, and Engel coefficient. In this research, subjective health is a personal assessment for both own mental and physical health condition because health is a kind of pre-condition to pursue better life (He et al., 2018, Kuo & Huang, 2020; Qazi et al., 2021). It implied that subjective health is likely to become the pre-condition for the marriage intention because marriage could become a step for better life. Moreover, this research chooses leisure time as the second element because individual cannot build and develop relationship for their future partners without time (Raza et al., 2020; Tükel & Temel, 2020). It indicates that leisure time might become a essential determinant of marriage intention. Plus, financial condition plays an important role for the decision making of life because better financial condition allows individuals to prepare more for future life (Hak et al., 2017; Oh & Kim, 2019; Grossmann et al., 2021). Regarding the search for the extant works, this research employs three cost-related attributes: Schwabe index (Oh & Kim, 2019; Grossmann et al., 2021), culture recreation ratio (Hak et al., 2017; Bąk & Szczecińska, 2020), and Engel coefficient (Xu et al., 2020; Kong et al., 2021). In order to accomplish the research purpose to account for subjective health, this work chooses above mentioned five attributes: subjective health, leisure time, Schwabe index, culture recreation ratio, and Engel coefficient

All things considered, the aims of this research is to inspect the relationship between marriage intention, subjective health, Schwabe index, culture and recreation ration, and Engel coefficient targeting Korean youth. By ensuring the relationship among various attributes, this research shed light on the literature, which allow scholars to understand more about the behavioral characteristics of youth. This research is also valuable in that it aims to inform policy makers to build more adequate policy to encourage youths to marry more. If policy makers could allocate government budget more efficiently referencing the results of current work, this might ultimately become the corner stone for the solution of population decline problem in Korean society.

II. Theoretical underpinning and research hypotheses development

1. Marriage intention

Marriage intention refers to an individual's. scheme for marriage, and the function of marriage

is to build a family for better life and happiness (An et al., 2022; Dai & Chilson, 2022). Previous research studied marriage intention arguing that it is a critical decision making in the life (Hamid et al., 2011; Park, 2016). Dai and Chilson (2022) researched the marriage intention using Millennials' as the target. Moreover, An et al. (2022) inspected Korean youth using marriage intention as the dependent variable. Park (2016) examined the effect of family value and expectation on marriage intention. Similarly, Hamid et al. (2011) explored the determinants of marriage decision. Himawan (2019) investigated the reasons for marriage attitude using Indonesian participants using Parkistan population. By integrating the review of literature, it can be inferred that marriage intention is considered as an essential piece in research domain. Even though certain prior works have attempted to investigate the characteristics of marriage intention, scant research has been implemented to figure out marriage intention.

2. Subjective health

Previous research has not directly investigated the determinants of marriage intention. However, it could be indirectly guessed by other aspects such as life satisfaction and quality of life because marriage is a decision for better life and happiness (Kaufman & Taniguchi, 2010; Chen, 2018; Tao, 2019). The first area of marriage intention is subjective health. For better life healthy physical and psychological condition are prerequisite because individuals could not properly manage their life without sound health condition (He et al., 2018, Kuo & Huang, 2020; Qazi et al., 2021). Indeed, extant literature empirically demonstrated the effect of subjective health for better life condition which is associated with the implementation for future living such as marriage. (He et al., 2018; Brink & Andersen, 2020; Fournier, 2020; Kuo & Huang, 2020; Qazi et al., 2021). This research thus proposes the following research hypothesis:

H1: Subjective health exerts positive effect on marriage intention.

3. Leisure time

The second domain of this work is leisure time. Leisure time is an available time for activities for pleasure (Raza et al., 2020; Tükel & Temel, 2020). During leisure time, people enjoy diverse activities, and the activities could be performed with future spouse, which in turn builds a worthwhile relationship (Ross et al., 2019; Lee et al., 2020; Williamson & Schouweiler, 2023). Prior studies found that leisure time is positively associated with happiness and life satisfaction which are linked with the better life condition and more social opportunity for their spouse (Ross et al., 2019; Lee et al., 2020; Mutz et al., 2021; Tokay Argan & Merin, 2021; Moon et al., 2022). It suggests that more leisrue time is likely to increase the likelihood of marriage intention. Given the review of literature, this study proposes the following research hypothesis:

H2: Leisure time exerts positive effect on marriage intention.

4. Schwabe index

The third area is Schwabe index. Schwabe index is the proportion of housing cost out of total living cost (Oh & Kim, 2019; Grossmann et al., 2021). Housing cost includes rent and water utility bill, electricity bill, and housing related cost (Haffner & Boumeester, 2014; Oh & Kim, 2019). High Schwabe index implies that an individual spend much budget for housing, which caused little surplus for other activities to enhance their life condition (Williams, 1998; Haffner & Boumeester, 2014; Grossmann et al., 2021). It suggests that higher level of Schwabe index is likely to decrease the available resource for the next step of life which might be related to the decision of marriage and taking care of health condition. Also, constraint resource is likely to become an obstacle for the decision of marriage because housing expense is a sort of sunk cost which deters better financial condition. Thus, this research proposes the following research hypotheses:

H3: Schwabe index exerts negative effect on marriage intention.

5. Culture and recreation ratio

The fourth area is culture and recreation ratio which is computed as culture and recreation expense over total household living expense (Pauls-Worm et al., 2014; Minner & Transchel, 2017; Hanukov et al., 2020; Lackey et al., 2021; Milanović et al., 2022). Moreover, the culture and recreation product is perishable, it means that culture and recreation is a single time product (Hak et al., 2017; Bąk & Szczecińska, 2020; Sheppard & Broughton, 2020; Cellini & Cuccia, 2021; Chmiel et al., 2022). It can be inferred that more spending on culture and recreation is likely to reduce the budget for marriage because the consumption causes opportunity cost for the preparation of marriage. This study thus proposes research hypotheses as follows:

H4: Culture recreation ratio exerts negative effect on marriage intention.

6. Engel coefficient

The last area is Engel coefficient which is the proportion of food cost out of entire living cost (Yu, 2018; Tian et al., 2019; Van Der Velde et al., 2019; Ma et al., 2020). Food cost is present-focused cost ((Hirvonen et al., 2020; Karpyn et al., 2022; Tan et al., 2022; Rha et al., 2023); it is regarded as the opportunity cost for investment for future life (Zeng et al., 2021; Xu et al., 2020; Kong et al., 2021). It implies that high level of Engel coefficient is less investment for future life such as marriage. Therefore, individuals who consume more for food is less likely to decide marriage because Engel coefficient is present-focused expense, while marriage's focus is futre. With respect to the review of literature, this research proposes the following research hypotheses:

H5: Engel coefficient exerts negative effect on marriage intention.

Ⅲ. Method

1. Data collection

This study used Youth panel for data collection. Youth panel is a public dataset offered by Korean Employment Information Service. The birth year range of Youth panel is 1978-1994. The data has been collected longitudinally. However, this study adopts only 2020 for the data analysis because most information for variables are only available in 2020 dataset. The study data was collected in 2020, which is the newest information. The number of valid observation for data analysis was 3305.

2. Description of variables

Marriage intention (MAI) is measured as binary form (0 = no, 1 = yes). Subjective health (SHE) is also measured by five-point scale (1 = very unhealthy, 5 = very healthy). Leisure time (LET) is the leisure time for weekends, and its unit is hour. Schwabe index (SCH) is computed as housing expenditure over total living expenditure. Table 1 also illustrates the measurement of culture recreation ratio (CRR) (Culture and recreation expenditure/total living expenditure) and Engel coefficient (ENG) (food expenditure/total living expenditure). Year of birth (YOB) is the birth year of survey participants, and this research measured gender (GEN) using binary variable (0 = male, 1= female). Last, financial condition (FAC) is measured by five-point scale (1 = very difficult, 5 = very free). YOB, GEN, and FAC are used as the control variable of this research because all the variables could minimize the likelihood of omitted variable bias in the estimation (Gujarati & Poreter, 2009; Wooldridge, 2009).

3. Data analysis

At the beginning, this study performed descriptive data analysis by computing mean, standard deviation, minimum and maximum. Then, this study implemented correlation matrix analysis to check the overall relationship between variables. Next, this research carried out independent t-test to scrutinize the group difference considering marriage intention as central piece. In order to test the research hypotheses, this study performed binary logistic regression analysis as a limited dependent variable analysis instrument because it minimizes the bias caused by the form of dependent variable in the estimation (Gujarati & Porter 2009; Wooldridge, 2009). The dependent variable is marriage intention. The regression equation is presented as follows:

$$\ln((P(MAI))/(1- P(MAI))) = \beta_0 + \beta_1 X_1 + \cdots + \beta_n X_n$$
Where, P(MAI) stands for likelihood of marriage intention

From the above equation, odds ratio ((P(MAI))/(1- P(MAI))) is computed by taking exponential to the beta coefficients. It is presented as follows:

$$(P(MAI))/(1- P(MAI)) = e\beta_0 + \beta_1 X_1 + \cdots + \beta_n X_n$$

Where, P(MAI) stands for likelihood of marriage intention, exp is exponential.

Then, this research scrutinized the group difference using independent t-test between intended group and non-intended group of marriage.

Ⅳ. Results

1. Descriptive statistics and correlation matrix

The mean value of MAI is 0.48. Table 1 shows the information of SHE (Mean = 3.62, SD = 0.69) and LET (Mean = 6.30, SD = 3.04). The mean values of SCH, CRR, and ENG are 0.13, 0.20, and 0.37, respectively. Plus, the standard deviations of SCH, CRR, and ENG are 0.09, 0.14, and 0.13, respectively. Next, the mean value of YOB is 1985.87, and its standard deviation is 4.48. For GEN, its mean value is 0.50. FAC shows 2.96 and 0.66 as mean and standard deviation, respectively.

Table 1. Descriptive Statistics

Variable	Mean	Standard deviation	Minimum	Maximum
MAI	0.48	0.49	0	1
SHE	3.62	0.69	1	5
LET	6.3	3.04	2	16
SCH	0.13	0.09	0	0.92
CRR	0.2	0.14	0	0.87
ENG	0.37	0.13	0	1
YOB	1985.87	4.48	1978	1994
GEN	0.5	0.5	0	1
FAC	2.96	0.66	1	5

Note: SD denotes standard deviation, MAI (Marriage intention), SHE (Subjective health), LET (Leisure time), SCH (Schwabe index), CRR (Culture recreation ratio), ENG (Engel coefficient), YOB (Year of birth), GEN (Gender), and FAC (Financial condition)

Table 2 is the correlation matrix. MAI positively correlates with SHE (r = 0.091, p < 0.05), LET (r =0.103, p < 0.05), YOB (r = 0.081, p < 0.05), and FAC (r = 0.063, p < 0.05), whereas MAI negatively correlates with CRR (r = -0.073, p < 0.05) and GEN (r = -0.084, p < 0.05). SHE also positively correlates with ENG (r = 0.128, p < 0.05) and FAC (r = 0.265, p < 0.05). SCH negatively correlates with CRR (r = -0.281, p < 0.05) and ENG (r = -0.229, p < 0.05). FAC also positively correlates with CRR (r = 0.079, p < 0.05) and ENG (r = 0.080, p < 0.05), while it is negatively correlates with SCH (r = -0.130, p < 0.05). Moreover, CRR and ENG shows the negative correlation (r = -0.471, p < 0.05).

Table 2. Correlation Matrix

Variable	1	2	3	4	5	6	7
1 MAI	1						
2.SHE	0.091*	1					
3.LET	0.103*	-0.083*	1				
4.SCH	0.023	-0.068*	0.080*	1			
5.CRR	-0.073*	-0.008	0.006	-0.281*	1		
6.ENG	0.016	0.128*	-0.024*	-0.229*	-0.471*	1	
7.YOB	0.081*	0.049*	0.165*	0.054*	0.078*	0.059*	1
8.GEN	-0.084*	-0.061*	-0.069*	-0.025*	-0.012	-0.025*	0.002

Note: $^*p < .05$, MAI (Marriage intention), SHE (Subjective health), LET (Leisure time), SCH (Schwabe index), CRR (Culture recreation ratio), ENG (Engel coefficient), YOB (Year of birth), GEN (Gender), and FAC (Financial condition)

3. Results of hypotheses testing

Table 3 is the results of binary logistic regression. LR x2 is statistically significant ($p < .05$). Pseudo R^2 is .0303. SHE ($\beta = 0.242$, $p < 0.05$) and LET ($\beta = 0.074$, $p < 0.05$) exert positive impact of MAI. Moreover, CRR ($\beta = -1.528$, $p < 0.05$) and ENG ($\beta = -0.811$, $p < 0.05$) negatively affect MAI. Moreover, YOB ($\beta = 0.036$, $p < 0.05$), GEN ($\beta = -0.334$, $p < 0.05$), and FAC ($\beta = 0.115$, $p < 0.05$) are significantly associated with MAI.

Table 3. Results of Binary Logistic Regression Analysis

Variable	β	t value	Odds
Intercept	-74.051	-4.11*	6.92×10^{-33}
SHE	0.242	4.68*	1.27
LET	0.074	6.41*	1.07
SCH	-0.323	-0.76	0.72
CRR	-1.528	-4.65*	0.21
ENG	-0.811	-2.38*	0.44
YOB	0.036	4.06*	1.03
GEN	-0.334	-4.64*	0.71
FAC	0.115	2.16*	1.11
LR Chi^2		138.71*	
Adjusted-R^2		.0303	

Note: $^*p < .05$, Dependent variable: MAI, $^*p < .05$, MAI (Marriage intention), SHE (Subjective health), LET (Leisure time), SCH (Schwabe index), CRR (Culture recreation ratio), ENG (Engel coefficient), YOB (Year of birth), GEN (Gender), and FAC (Financial condition)

Table 4 is the results of independent t-test for the comparison between groups (0 = No marriage intention, 1= Marriage intention). Negative t-vale stands for the larger value of participants with marriage intention. SHE (t-value = -5.24, $p < .05$), LET (t-value = -6.00, $p < .05$),

CRR (t-value = 4.23, p < .05), YOB (t-value = -4.71, p < .05), and FAC (t-value = -3.62, p < .05) presents the significant difference depending on MAI.

Table 4. Results of Indepdent t-test for Marriage Intention

MAI	No	Yes	t-value
SHE	3.542	3.677	-5.24*
LET	6.753	7.407	-6.00*
SCH	0.135	0.139	-1.33
CRR	0.222	0.200	4.23*
ENG	0.374	0.379	-0.92
YOB	1987.607	1988.257	-4.71*
FAC	2.881	2.970	-3.62*

Note: MAI (Marriage intention), SHE (Subjective health), LET (Leisure time), SCH (Schwabe index), CRR (Culture recreation ratio), ENG (Engel coefficient), YOB (Year of birth), GEN (Gender), and FAC (Financial condition)

V. Conclusion

This research examined influential variables to the marriage intention for Korean youth. This study adopted Youth panel for data collection with 3305 observations. The results indicate that better subjective health is more likely to lead youth to marry. Moreover, the results showed that youth with more leisure time showed higher likelihood of marriage intention. Conversely, insufficient leisure time for youth discourage them to marry. Plus, the results presented that Engel coefficient and culture recreation ration negatively impacted on the marriage intention. It can be inferred that quality of leisure is more important that just quantity of leisure. Because Engel coefficients and culture and recreation expenses are present-focused cost, it lowers the likelihood of marriage intention. Namely, youth spend their money more on themselves for present moment because they do not need to prepare money for their future family. It is a sort of Carpe diem consumption pattern, which decrease the budget for future. This research also revealed non-significant effect of Schwabe index on marriage intention. This might be explained that housing cost could be both present and future focused expense. That is, this sort of mixed characteristics of Schwabe index brought about non-significant results because housing cost could become the saving for purchasing house and current rent fee for housing. Regarding the results of independendent t-test, groups with marriage intention has better assessment on their subjective health, leisure time, year of birth, and financial condition. However, the results showed that groups without marriage intention had a higher value in culture and recreation ratio. It implied that the expense for the cultural expense might be percieved as a sort of luxuruy goods to the youth, whereas food and housing could be regarded as necessary goods.

This study has theoretical implications. First, this study is worthwhile to investigate diverse element for marriage intention. Even though marriage intention is an essential element, sparse studies have been empirically implemented to understand the determinants of marriage

intention. Since this study affiliate such a research gap, this could become the theoretical contribution of this research.

This study has implications for policy making. First, government might be able to allot more resource into the improving health condition for youth both physically and mentally. Moreover, government might be able to contemplate how to guarantee the leisure time for youth because it can encourage them to marry more. In order to accomplish such a goal, legislation also is necessary for more leisure time, which is linked with the work-life balance of youth. In addition, government policy might be able to focus on saving for youth rather than present-focused consumption: eating and leisure. This could be achieved the informing government support program for youth financial plan such as supporting interest amount and rate for current saving. Moreover, the expense for cultural activies might become a burden from the view point of youth. Thus, government might need to support this sector by offering coupon for the youth. By doing so, the likelihood of marriage for youth could be increased, which in turn, results in become a piece of solution for population decline by low rate of marriage.

This study has limitations. First, this research examined five attributes and its R-square were approximately 0.03. It indicates that the attributes used in this research were limited to account for the marriage intention. Future research thus might be able to look for stronger determinants of marriage intention. Also, this study used limited dependent variable method for data analysis. Future research might be able to use continuous variables for inspecting marriage intention. This could become the avenue to scrutinize the marriage intention characteristics.

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