Asian Social Science; Vol. 12, No. 7; 2016
ISSN 1911-2017 E-ISSN 1911-2025
Published by Canadian Center of Science and Education

The Effect of Income, Health, Education, and Social Capital on Happiness in Indonesia

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Received: December 3, 2015 Accepted: April 21, 2016 Online Published: June 21, 2016

doi:10.5539/ass.v12n7p75 URL: http://dx.doi.org/10.5539/ass.v12n7p75

Abstract

The purpose of the study is to analyze the effect of income, health, education, and social capital on happiness in Indonesia. The data was taken from National Survey of Social Economic conducted by National Bureau of Statistics of Indonesia in 2012. Ordered probit model was used as estimation technique due to ordinal dependent variable and normal distribution of error assumption. The findings show happiness is affected by absolute income, physical perceived health status, mental health, medium and high level of education, trust in leader, participation on society's activities, tolerance, and help for and from others. However relative income, gender, household head, junior high school, and trust to neighbors do not have significant effect on happiness. Easterlin paradox does not exist in Indonesia because income has positive impact on happiness. Satisfaction on works, financial, family harmony, and leisure time also have significant effect on happiness. Satisfaction on family harmony is the most important factor than others. From demographic variables, it was known that happiness is not different across gender, household head, and low education people. People who are married, live in urban areas, live outside Java and Bali islands, and have more children are found happier. Happiness-age relationship indicates U-shaped curve. Happiness tends to decrease over time until people reach 51 years old. For all three level of happiness, some predictors do not have significant marginal effect on happiness namely relative income, gender, low education level, and trust to neighbors. Meanwhile the variables of household head and number of infant are not robust.

Keywords: education, happiness, health, income, social capital

1. Introduction

Gross Domestic Products (GDP) is not a good welfare measure. It is because GDP does not measure many aspects of human life so that the country needs the alternative measure. So that General Assembly of United Nation had invited its members to use an alternative measure of GDP since 2011. Afterwards many countries eager to measure happiness index such as French, England, and Australia. Happiness index is one of many welfare measures called Beyond GDP. But happiness index is not a new concept of Beyond GDP. Since 1970s there have been some new welfare measures such as Human Development Index (HDI), Green GDP, Index of Social Progress, and Well-Being Index.

All those alternative measures used wider aspects to construct the indexes. This is because of many aspects have impact on human well-being. A pioneer country that had used wider aspects to construct a new GDP was Bhutan. This country has been using Gross National Happiness (GNH) to replace Gross Domestic Products (GDP) since 1970s. GNH has nine domains such as psychological well-being, health, time usage, education, cultural diversity and resilience, good governance, community vitality, ecological diversity and resilience, living standards (Ura, Alkire, Zangmo, & Wangdi, 2012). Since then, many countries have given more attention on welfare index that covers more holistic components such as happiness index.

According to Objective List Theory of happiness, there are some important components in life (Nussbaum, 1992; Sen, 1985 in Seligman, 2003). They are material needs, freedom, health, education, knowledge, and friendship that could impact on happiness. This research aims to analyze the effect of absolute income, relative income, education level, perceived health, social capital, leisure time, satisfaction on financial, work and family on

happiness in Indonesia. Up to now, there are only few studies on happiness in Indonesia conducted by Sohn (2010) and by Landiyanto, Ling, Puspitasari, & Irianti (2011). The potential contribution of the study takes place in the independent variables that cover broader aspects of life. It may contribute to happiness research in Indonesia in some aspects. First, this study takes four indexes of social capital which cover more aspects on social life. Second, the study also employs absolute and relative income to capture happiness-income relationship. Third, the study also use perceived mental health indexes as supplementary of physical health index. Four, the study took some domain of satisfactions as happiness predictor. The research data was taken from National Survey on Social Economic in 2012 published by National Bureau of Statistics of Indonesia.

2. Literature Review

The concept of happiness based on KBBI (Kamus Besar Bahasa Indonesia), which is the most prominent Indonesian dictionary, is pleasure and tranquility within body and soul, luck, fortune. This definition is in line with the happiness concept in Javanese culture called Suryomentaraman philosophy. It came from Suryomentaram, (1892-1962), a famous Javanese philosopher. His thought about philosophy is rather different against Western philosophy. He told that a patient is an active person rather than a passive target. He also said that "kramadangsa" is the source of unhappiness, dissatisfaction, and unfortunate feeling (Nurhadi, 2007). Suryomentaram stated that happiness is the circumstances with tranquility, intimate, harmonious, free from improper wants (Yuwanto, 2014).

In social sciences, happiness is commonly found in psychology and sociology research. In economics this concept was introduced in 1970s by Easterlin. Happiness does not have any single definition. In sociology happiness is not different from life satisfaction (Veenhoven, 1988). Happiness is overall appreciation of one's life as a whole (Veenhoven, 2008), which makes human beings feel positive and pleasure. These definitions are in line with Bentham's concept of happiness, that is, the sum of pleasures and pains. In psychology, happiness is different from life satisfaction. Happiness is part of subjective well-being. Subjective well-being is well-being condition within long duration that has affective and cognitive aspects. Kahneman (1999) said that well-being consisted of pleasure or happiness. However, in Economics, happiness is not different from subjective well-being, satisfaction, utility, well-being, or welfare (Easterlin, 1995).

An income increase is not necessarily followed by the increase of happiness. Tian & Yang (2006) reported that income increase will increase happiness until maximum level of happiness. There is certain income where happiness reaches the maximum level which called as a critical income. There is an Easterlin paradox when increasing income does not increase happiness. In order to enhance the happiness level, it needs an extension of non-income factors.

Easterlin paradox implicitly informs that income is not the only matter for happiness. There are other factors such as relative income (Clark, Fritjers, & Shields, 2008), income comparison (Clark & Senik, 2011), income aspirations (Stutzer & Frey, 2010), hedonic adaptation or hedonic treadmill (Brickman & Campbell 1971 in Clark et al, 2008), income expectation (Mc. Bride, 2010), and social dimensions of human well-being (Helliwell & Putnam, 2004). When the basic needs are fulfilled, human being need to fulfill more than material goods such as social needs, social relation (Diener & Seligman, 2004; Kesebir & Diener, 2008), and esteem, self-actualization (Sirgy, 1986). However income has more important roles in developing countries to create welfare or happiness compared to developed countries.

Happiness-income relationship was first explored by Easterlin (1974). His study indicated that income and happiness had a positive relation at one point of time but not of over time. It is called happiness paradox or Easterlin paradox. One possible source of Easterlin paradox is income aspiration (Easterlin, 2001; Stutzer & Frey, 2010) or relative income (Blanchflower & Oswald, 2004; Clark et al., 2008) or income comparison (Clark & Senik, 2011). Some researchers found that there is a positive relationship in income and happiness (Blanchflower & Oswald, 2004); Stevenson & Wolfers, 2008). Some researchers argued that happiness will continue to increase until a certain level and tends to decrease or remain unchanged. Stevenson & Wolfers (2013) said that the existence of threshold income is widely claimed although there is no statistical evidence presented. They have summarized some threshold income from some articles which between the range $8,000 - $25,000 (Di Tella & McCulloch, 2008), $15,000 (Layard, 2003), $ 20,000 (Layard, 2005), $10,000 (Frey & Stutzer, 2002).

Usually education-happiness and health-happiness have positive relationship. Michalos (2008), Chen (2012) and Cunado & de Garcia (2012) argue that education level does not affect happiness directly. It has indirect channel through network (social capital) or through self-confidence and self-estimation. Health-happiness relationship is found by Green & Elliot (2010) through intermediate variable. They found that higher religiosity creates better health and happiness. Singer, Hopman, & McKenzie (1999) argued the decrease in health followed by the

increase of age does not make someone unhappy because of mental maturity. Someone that becomes unemployed may have decrease in health and it becomes worst for non-volunteer (Dave, Rashad, & Jasmina, 2008).

Social capital-happiness relationship could be seen from trust within community. Helliwell (2007) found that the higher social capital the lower suicide and higher subjective well-being will be. Interpersonal mistrust made unhappiness (Tokuda & Inoguchi, 2008). Non market relational goods such as trust in individual, membership, and trust in institution make life satisfaction higher (Sarracino, 2012).

Iwasaki (2007) investigates happiness-leisure relationship. He found that many channels are connected with leisure time and happiness. Firstly, it can be done via positive emotion and experience from leisure time using. The second is via positive identities and self -confidence from leisure and the third, from contribution within learning as long as human life. Leisure time measurement could use either subjective criteria or objective criteria (Lloyd & Auld, 2002). Subjective criteria is identic with person-centered and objective criteria identic with place-centered.

Economics concerns on objective condition meanwhile psychology concerns on subjective conditions in studying human satisfaction. Global happiness or overall life satisfaction is seen as the net outcome of reported satisfaction with major domains of life such as financial situation, family life, job satisfaction and so on (Campbell, 1981). Satisfaction in each domain is viewed as reflecting of objective outcomes in each domain that match someone's goals in that area (Easterlin & Sawangfa, 2007). There are a few studies that linking global happiness and different domains such as Van Praag & Ferrer-i-Carbonell (2004).

3. Research Method

3.1 Data

The data was taken from National Survey of Social Economic published by National Bureau of Statistics of Indonesia, 2012. It was retrieved from Module of Social, Education, and Culture Social. It covered 75,000 households within 33 provinces in Indonesia. Total number of observations for this study is 40040.

3.2 Empirical Strategy

Happiness was measured with this question "How do you feel about your life until today?" The answer is arranged in order from unhappy, not so happy, happy, and very happy. This order was changed into three orders because there is only less than 1 percent of unhappy answer. The categories of "so unhappy" and "not so happy" were combined into "unhappy". Household per capita expenditures is used as proxy for absolute income per capita. Relative income is ratio of absolute income and mean income. Health was measured with the question "How is your current health condition in general?" The possible answers are ranged from unhealthy, not so healthy, healthy, and very healthy. Mental Health was measured by two indexes i.e. Forgiveness and Solicitousness. The variable of education is the highest diploma achieved and classified into three dummy i.e. Junior High School, Senior High School, and College. Social capital has many aspects therefore it was classified into five indexes: participation, tolerance, help, trust in neighbors, and trust in leader.

Demographic characteristics are age, gender, marital status, position in the household, residential location, number of children in a household. The study also used leisure time, satisfaction with income, harmonious in the family, and satisfaction with the job or work as predictors to get more information how domain satisfaction affect happiness.

The empirical model is:

$$Y_i = \alpha + \beta_1 X_{1i} + \beta_2 X_{2i} + \beta_3 X_{3i} + \beta_4 X_{4i} + \beta_5 X_{5i} + \beta_6 X_{6i} + \beta_7 X_{7i} + \beta_8 X_{8i} + \varepsilon$$

where

Y_i : happiness,

X_{1i} : real income per capita,

X_{2i} : relative income,

X_{3i} : percieved health,

X_{4i} : education level vector,

X_{5i} : social capital vector,

X_{6i} : demographic characteristics vector,

X_{7i} : leisure time,

X_{8i} : satisfaction domain vector,

ε : error term.

Subsripct i shows data for i[th]person.

3.3 Estimation Methods

The study uses an ordered probit model as the estimation method due to ordinal dependent variable. This method assumes a normal distribution in error. The true happiness is a latent variable. Therefore this research addresses the latent variable within the research model. Latent variable, y^*, could be located between $-\infty$ and ∞. The structural model is

$$y_i^* = X_i\beta + \varepsilon_i \quad (1)$$

With one predictor the model becomes

$$y_i^* = \alpha + \beta\, x_i + \varepsilon_i \quad (2)$$

If J is ordinal categorical such that presented as follows:

$y_i = m$, if $\tau_{m-1} < y^* < \tau_m$ u for $m = 1, \dots, J$

τ_i are some cut-points or thresholds that totally is $J - 1$ where $\tau_0 = -\infty$ and $\tau_J = \infty$.

For example there are four categories (SD, D, A, DA) in ordinal variable, then the observed response category connected with latent variable is:

$$y_i = \begin{cases} 1 = SD\ if \tau_0 = -\infty \le y_i^* < \tau_1 \\ 2 = D\ if\ \tau_1 \le y_i^* < \tau_2 \\ 3 = A\ if\ \tau_2 \le y_i^* < \tau_3 \\ 4 = DA\ if\ \tau_3 \le y_i^* < \tau_4 \end{cases}$$

Probability observed outcome lies between two cut-points τ_{m-1} and τ_m is

$$\Pr(y = m\,|\mathrm{X}) = Pr(\tau_{m-1} \le y_i^* < \tau_m|\mathrm{X})$$

Substitute y^* with $X\beta + \varepsilon$ to get predicted probability:

$$\Pr(y = m\,|\mathrm{X}) = F(\tau_m - X\beta) - F(\tau_{m-1} - X\beta)$$

F is cumulative density function for ε which normal in distribution with $Var\,(\varepsilon) = 1$.

4. Results

4.1 Descriptive Analysis

This study has 40,040 observations. Demographic characteristics inform that there are 56.92 percent female, 85.06 percent married, 48.81 percent as household head, 53.64 percent live in rural area, 25 percent people live in West Java, Central Java, and East Java. The range of age is between 15 and 64 years old with mean age is 40.5 years old. The data informed that 45 percent people have low education level which is elementary school graduate. Leisure time enjoyed by people is mostly around 2-3 hours per day (35.75 percent). Mean income per capita is IDR 786301.7, and the lowest income is IDR 96916.8 and highest income is IDR 2.86e+07. Most Indonesians are happy people. The data shows 77.71 percent people are happy, 12.07 percent very happy and 10.22 percent unhappy people.

Table 1. Descriptive statistics

Variable	obs	Mean	Std. Dev.	Min	Max
SWB	40040	2.018407	0.471772	1	3
Income	40040	786301.7	846822	96916.8	2.86e+07
LnY	40040	13.30211	0.6891714	11.48161	17.16967
Y/Y*	40040	1.044971	1.1254	.1287995	38.03728
Health	40040	.8693057	0.3370699	0	1
Forgiveness	40040	3.175524	0.4893892	1	4
Anxiety	40040	2.137178	0.5261469	1	4

Variable	obs	Mean	Std. Dev.	Min	Max
Junior High School	40040	.1797702	0.3840008	0	1
Senior High School	40040	.2600899	0.4386889	0	1
College	40040	.0956543	0.2941203	0	1
Participation	40040	2.312218	0.5670442	1	4
Trust-Leader	40040	3.015401	0.3266882	1	4
Tolerance	40040	2.789186	0.5008053	1	4
Trust-Neighbors	40040	2.807043	0.4936145	1	4
Help	40040	2.567524	0.4874581	1	4
Age	40040	40.48536	10.86441	15	64
Sex	40040	1.569206	0.4951936	1	2
Household Head	40040	1.570055	0.6011946	1	3
Marriage	40040	2.074925	0.5618477	1	4
Urban-rural	40040	1.536364	0.4986822	1	2
Province	40040	41.22917	24.14918	11	94
Diploma	40040	5.17455	3.943148	1	14
Leisure	40040	2.338237	0.9871709	1	4
Financial satisfaction	40040	2.620205	0.5918571	1	4
Work satisfaction	40040	2.740934	0.6223063	1	4
Family satisfaction	40040	3.115534	0.5483113	1	4

4.2 Estimation Results

The results of estimation using ordered probit model are displayed in Table 2.

Table 2. Estimation results

Predictors	Regression coefficient	Robust standard error	p-value
LnY	0.094	0.0180	0.000
Y/Y*	-0.012	0.010	0.232
Age	-0.033	0.005	0.000
Age2	0.0003	0.00005	0.000
Female	0.028	0.025	0.268
Married	0.531	0.024	0.000
Household Head	-0.020	0.026	0.452
Urban	0.060	0.0160	0.000
Java-Bali	-0.138	0.016	0.000
dART0	0.028	0.017	0.097
dART5	0.057	0.024	0.018
Forgiveness	0.101	0.015	0.000
Anxiety	-0.196	0.014	0.000
Physical Health	0.297	0.023	0.000
Junior High School	0.030	0.019	0.122
Senior High School	0.118	0.019	0.000

Predictors	Regression coefficient	Robust standard error	p-value
College	0.252	0.027	0.000
Participation	0.061	0.018	0.001
Trust-Leader	0.551	0.025	0.000
Tolerance	0.059	0.015	0.000
Trust-Neighbors	0.021	0.016	0.174
Help	0.202	0.020	0.000
Leisure	0.051	0.007	0.000
dFinancial	0.463	0.018	0.000
dWorks	0.275	0.019	0.000
dFamily	1.138	0.030	0.000
Cut1	3.755	0.273	0.000
Cut2	6.764	0.275	0.000

The results show that relative income, gender, household head, junior high school, and trust to neighbors do not have significant effect on happiness. The rest variables have significant effect for 1 percent significance level except the number of children in school age for 5 percent and number of infants in the family for 10 percent.

In other words the determinants of happiness in Indonesia are absolute income, general perceived health status, mental health, education level, most of social capital components and also satisfaction domains.

4.3 Robustness

Robustness of the predictors could be seen from consistency of its sign and significance as shown in Table 3.

Table 3. Robustness of oprobit model

Predictors	Regression coefficient					
LnY	0.2684*** (0.015)	0.334*** (0.016)	0.259*** (0.016)	0.190*** (0.017)	0.204*** (0.017)	0.094*** (0.018)
Y/Y*	-0.034*** (0.010)	-0.034*** (0.009)	-0.026*** (0.009)	-0.024*** (0.009)	-0.027*** (0.009)	-0.012 (0.010)
Age		-0.020*** (0.004)	-0.026*** (0.004)	-0.030*** (0.005)	-0.040*** (0.004)	-0.033*** (0.005)
Age2		0.0002*** (.00005)	0.0003*** (0.00005)	0.0003*** (0.00005)	0.0004*** (0.00005)	0.0003*** (0.00006)
Female		-0.057** (0.024)	-0.028 (0.024)	-0.004 (0.024)	0.019 (0.025)	0.0280 (0.025)
Married		0.729*** (0.023)	0.711*** (0.023)	0.727*** (0.023)	0.722*** (0.024)	0.530*** (0.024)
Household Head		-0.117*** (0.025)	-0.106*** (0.025)	-0.088*** (0.025)	-0.086*** (0.026)	-0.020 (0.026)
Urban		0.048*** (0.014)	0.046*** (0.015)	0.004 (0.015)	0.056*** (0.015)	0.060*** (0.016)
Java-Bali		-0.084*** (0.014)	-0.162*** (0.015)	-0.158*** (0.015)	-0.159*** (0.015)	-0.138*** (0.016)
dART0		0.071***	0.060***	0.035**	0.039**	0.028*

Predictors	Regression coefficient				
	(0.015)	(0.016)	(0.016)	(0.016)	(0.017)
dART5	0.083***	0.093***	0.062***	0.059**	0.057**
	(0.023)	(0.023)	(0.023)	(0.024)	(0.024)
Forgiveness		0.271***	0.262***	0.168***	0.101***
		(0.014)	(0.014)	(0.014)	(0.0148335)
Anxiety		-0.388***	-0.378***	-0.378***	-0.196***
		(0.013)	(0.014)	(0.014)	(0.014)
Physical Health		0.496***	0.483***	0.444***	0.297***
		(0.022)	(0.022)	(0.022)	(0.023)
Junior High School			0.065***	0.046**	0.030
			(0.018)	(0.019)	(0.019)
Senior High School			0.193***	0.166***	0.118***
			(0.018)	(0.018)	(0.019)
College			0.378***	0.331***	0.252***
			(0.025)	(0.026)	(0.027)
Participation				0.114***	0.061***
				(0.017)	(0.018)
Trust-Leader				0.585***	0.551***
				(0.024)	(0.025)
Tolerance				0.091***	0.059***
				(0.014)	(0.015)
Trust-Neighbors				0.027*	0.021
				(0.015)	(0.015)
Help				0.208***	0.202***
				(0.020)	(0.020)
Leisure					0.051***
					(0.007)
dFinancial					0.463***
					(0.018)
dWorks					0.275***
					(0.019)
dFamily					1.138***
					(0.030)

Note. Robust standard error in parentheses

*p<.1, **p<.05, ***p<.01

All predictors are robust except relative income, gender, household-head, and low education level (junior high school). Relative income is robust in any model except in the last model. Adding variable of satisfaction domains make relative income has insignificant effect on happiness.

4.4 Marginal Effects

The probability of marginal effects for three level of happiness is illustrated in Table 4.

Table 4. Marginal effects

Predictors	Unhappy	Happy	Very Happy
LnY	-0.010***	-0.003***	0.014***
Y/Y*	0.001	0.0004	-0.002
Age	0.004***	0.001***	-0.005***
Age2	-0.00004***	-0.00001***	0.00005***
Female	-0.003	-0.0009	0.004
Married	-0.080***	0.020***	0.060***
Household Head	0.002***	0.0007	-0.003
Urban	-0.007***	-0.002***	0.009***
Java-Bali	0.016***	0.003***	-0.020***
dART0	-0.003*	-0.001	0.004
dART5	-0.006**	-0.002*	0.009**
Forgiveness	-0.011***	-0.003***	0.015***
Anxiety	0.022***	0.007***	-0.029***
Physical Health	-0.040***	0.003*	0.037***
Junior High School	-0.003	-0.001	0.004
Senior High School	-0.013***	-0.005***	0.018***
College	-0.024***	-0.018***	0.042***
Participation	-0.007***	-0.002***	0.009***
Trust-Leader	-0.062***	-0.018***	0.080***
Tolerance	-0.007***	-0.002***	0.009***
Trust-Neighbors	-0.002	-0.0007	0.003
Help	-0.023***	-0.007***	0.029***
Leisure	-0.006***	-0.002***	0.007***
dFinancial	-0.057***	-0.006***	0.063***
dWorks	-0.034***	-0.003***	0.037***
dFamily	-0.250***	0.165***	0.084***

*p<.1, **p<.05, ***p<.01

For all three level of happiness, some predictors do not have significant marginal effect on happiness namely relative income, gender, low education level, and trust to neighbors. Meanwhile the number of household head and number of infant are not robust. The marginal effect for unhappy and happy-feeling have similar sign but it has an opposite sign with very happy-feeling. So far, only variables "married, health, and dFamily" that have similar sign in marginal effect towards happy and very happy.

5. Discussion

There are many predictors that determine happiness in Indonesia. They are absolute income, physical perceived health status, mental health, medium and high level of education, trust in leader, participation on society's activities, tolerance, and help for and from others. They all have positive effect on happiness.

Absolute income has positive effect on happiness. Increasing in absolute income leads to the increase happiness level as well. It indicates that Easterlin paradox does not exist in Indonesia. This result is common existing in developing countries which shows that income is a matter of happiness. According to the research data, mean per capita income in 2012 is IDR 786301.7 or $ 726 per capita per annum (with exchange rate IDR 13000/USD). This means Indonesia is categorized into low level income country. Moreover this research uses cross-section data which has little possibility for testing Easterlin paradox. This paradox does not exist at one point of time but

over time happiness income relationship.

Relative income does not have a significant impact on happiness. This variable is also robust in the model with addition of predictors. Does relative income really not determine happiness in Indonesia? By using regression on sub sample, a clearer picture about importance of relative income can be identified. Respondents with income below the mean have this profile. Their happiness depends on absolute income, relative income and they tend to trust in neighbors. Low level of education still has an important role on happiness. These findings are different from respondent's profile coming from higher income level. Regression on sub sample which has income at least same as the mean level shows that absolute and relative income did not have significant effect on happiness. These people tend to have low level of social engagement and income does not matter for them.

Health has a positive impact on happiness. Higher physical perceived health status leads to the increase in happiness and mental health. Higher level of mental health will increase happiness since health people can do many things. They are more productive in work place so they could earn income. Healthy people can save more money from health cost. This situation could make people happier.

Increasing in education level will increase happiness. It is only for people with medium and high level of education. For low level of education there is no impact on happiness except for low level of income people. The labor market competition for low level of education is higher than the medium and high level of education. So for low income people, it might be worthy if they could win in this competition. Generally higher education level will increase the opportunity to make broader networking and employment (Chen, 2012). It also opens a bigger opportunity to get a better job and income which leads to happiness (Cunado & Garcia, 2012).

Most of social capital components have positive effect on happiness. Variables of tolerance, participation, help, and trust in leader have significant effect on happiness. Indonesia is characterized by Eastern culture. In Indonesian society, there is a tradition called *gotong royong* culture which still important role in everyday life. According to KBBI (Kamus Besar Bahasa Indonesia) *gotong royong* is a tradition of working together, help each other. But in one case, even though Indonesian people believe in *gotong royong*, they do not trust to their neighbors for important and valuable matters like children and house. They literally cannot leave them with their neighbors when sometime they have to go out. This condition suggests that there is safety assurance for people to leave particular matters safely.

Satisfaction on works, financial, and family harmony also have a significant effect on happiness. Among others, satisfaction of family harmony is the most important factor. It has the biggest regression coefficient. The data showed that 92.75 percent people were satisfied with their family, 70.61 percent were satisfied with their works, and 61.65 percent were satisfied with their financial. From the data it was known that national mean income is IDR 786301.7. Satisfaction on financial and works is related to income. People who are satisfied with their financial have higher mean income than national mean income and vice versa. People who are satisfied with their works have higher mean income than national mean income and vice versa. Satisfaction on the family harmony does not correlate with income level. It was known from mean income for "satisfied" and "unsatisfied" that is not really different. The mean income are IDR 786893.3 and IDR 778730.2 for satisfied and unsatisfied people respectively.

Demographic variables show many interesting pictures of Indonesian characteristics. Married people are happier than unmarried (not married, dead or alive divorce). Married people are considered to have life protection supports such as financial, emotional, and health (Stack & Eshleman, 1998) which make them stronger to face many problems in daily life. This is in line with the *protection support hypotheses* from Coombs (1991) and *married protection hypotheses* from Stack & Eshleman (1998). The study also finds that there is no gender effect on happiness. To my knowledge, there is no specific theory of happiness over gender. Only Akerlof & Kranton (2000) who propose *gender identity hypothesis* about job characteristics. From regression on sub sample, it does not reveal different significant result for women and men, even though for men relative income has significant effect on happiness. It indicates that social comparisons have important things to show social strata. It also conveys the level of success a man has in his life.

Household head is not a robust predictor in this study. Before the last model, this predictor is robust. Some predictors i.e. satisfaction with income, works, and harmony in the family make insignificant effect of household head towards happiness. This is because the effects of those three satisfaction indicators are bigger than others. They have higher regression coefficient than other predictors. So the impact of household head is offset by the impact of satisfaction indicators. In the last model, position in the household does not significant effect on happiness.

People who live in the outside of Java and Bali islands tend to be happy. This is because of less population

pressure. Most Indonesian people live in the islands of Java and Bali. More than 62.5 percent people live in those islands and only 37.5 percent people live in other islands. This situation makes high population density in Java and Bali islands which make higher problems for instance mental problem. By using regression on subsample, the study found that people living in Java and Bali islands have less leisure time which has significant effect on happiness. They use leisure time to offset pressure life and enjoy the time with family interactions especially with their infants.

Urban people tend to be happier than rural people. This result is quite different from other research. Better environment quality, social engagement and peaceful life make rural people are happy (Smyth et al., 2011). On the other hand rural people may have many problems such as lower income, insufficient public transportation, and lower health quality than urban people. Rural people need much more public goods provision (Jongudomkarn & Camfield, 2006). The research data show that mean income of rural people is below of national mean income but not for urban people. There are 67.67 percent urban people who have income above national mean income but only 32.33 percent for rural people. This fact might explain why rural people tend to be unhappier than urban people. Moreover using regression on sub sample, the result suggest that regression coefficient of absolute income on urban people is higher than rural people. Urban people have much more income and bigger marginal effect of income than rural people.

Happiness-age relationship was indicated as a U-shaped curve. Happiness tends to decrease over time until people are reaching 51 years old. Afterwards happiness tends to increase over time. Age classification analysis gave clearer picture about happiness-age relationship. People in sub group of 15-19 years old are the unhappiest cohort. There is 16 percent unhappy people who coming from this group. People in sub group of 45 years and above are also categorized in unhappy people. Happy feeling mostly comes from 30-40 years old people. It seems that there are decreasing trends in happy and very happy feeling within group of 50 years old and above. On the other hand there is increasing trend on unhappy feeling from 50 years old group. The data support the finding that the critical age is 51 years old. The possible sources of unhappiness is health problem when people getting older and getting poorer. Health cost is quite expensive enough for most of them.

Marginal effect measures the impact of one unit change in predictor at one unit of probability of each level of happiness. Increasing one unit of absolute income will decrease either probability of unhappy or happy feeling. But it has less probability reduction of happy than unhappy feeling. The probability of being happy almost does not change if income changes. In the other hand increasing absolute income will lead to increasing in probability of being very happy. The result indicates that increasing income will increase happiness probability.

Mental health indicators show that higher index of “forgiveness” will decrease the probability of either being unhappy or happy but increase probability of being very happy. Index of “anxiety” shows higher probability of being unhappy and being happy but lower probability of being very happy. The result shows that positive indicator of mental health will increase the probability of being very happy and vice versa. There is an ambiguity in the probability of being happy and unhappy since both might show similar signs. Physical health status indicates positive effect of health status on probability of being happy and very happy.

For education level, there is a different result between low and high level. Low level of education does not have significant effect on happiness. Higher education level, such as senior high school, and college and above have significant effect on happiness. Higher education level will increase the probability of being very happy and decrease the probability of being unhappy and happy. Low level of education could not help to get better job and better life as well. So this low education level does not have significant marginal effect on happiness.

Social capital components are “trust in leader, trust in neighbors, help, participation, and tolerance.” Only variable *trust in neighbors* does not have significant marginal effect. Increasing in indexes of “trust in leader, help, participation, and tolerance” will increase probability of being very happy but lower probability of being unhappy and happy. For a certain matter which is considered very important and valuable such as children and house, people cannot leave them with their neighbors.

Leisure time has a positive significant effect on happiness. The increase in leisure time leads to higher in probability of being very happy but lower probability of being unhappy and happy. More leisure time means more time for relaxing, doing some hobbies, also for family and social life. Leisure time could create positive emotion which increases happiness (Iwasaki, 2007).

Satisfaction with financial, works, and family harmony in the family have significant marginal effect on happiness. The higher satisfaction in financial, works, and family harmony will increase probability of being very happy. Satisfaction on those matters shows that there is no great difference between what is being expected and what happens in reality. The result is in line with the finding of Easterlin & Sawangfa (2007).

6. Conclusion

The research reports that absolute income, physical perceived health status, mental health, medium and high level of education, trust in leader, participation on society's activities, tolerance, help for and from others, and satisfaction domains have positive impact on happiness. It was also found that relative income, gender, household head, junior high school, and trust to neighbors do not have significant effect on happiness. Easterlin paradox does not exist in Indonesia.

Leisure time has positive effect on happiness. Satisfaction on works, financial, and family harmony also have significant effect on happiness. Satisfaction on family harmony is the most important factor than others. From demographic variables, it was known that happiness is similar over gender, household head, and low education level. Married people, live in urban area, live in outside Java-Bali islands, and have more children in the family are happier people. Happiness-age relationship indicates U-shaped curve. Happiness tends to decrease over time until people reach 51 years old.

For all three level of happiness, some predictors do not have significant marginal effect on happiness namely relative income, gender, low education level, and trust to neighbors. Meanwhile the variable of household head and number of infant are not robust. Marginal effect of being unhappy and happy feeling have similar signs but it has opposite sign with very happy feeling. There are only "married, health, and dFamily" that have similar sign between happy and very happy.

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