ECONOMIC OF HAPPINESS IN WONOSOBO REGENCY, INDONESIA

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This study examines the relationship between individual happiness with economic prosperity. By employing the linear regression model on the data survey of 400 individuals in Wonosobo regency, Central Java Province, Indonesia, this study analyzes how the influence of income as economic factor, and the social factors toward the happiness of community in Wonosobo. In the early stages, this study measures the level of happiness of society - by performing the subjective well-being index. The study finds that people in Wonosobo have a high happiness, which is indicated by the index number of 0.67. The factors that statistically affect the happiness of Wonosobo society are life satisfaction, health, changes in values, public services, and culture; while family relationships, changes in the environment, income (expenses), and religiosity do not statistically affect the the happiness of Wonosobo society. The study recommends that a joint program between programs that improve the quality and adequacy of the necessities of life, and the programs that increase happiness such as improved public services, health and public service provision, with also consider to the development of the culture and change the value of life.

Keywords: Economic of happiness, subjective well-being, individual income, multinomial logit

INTRODUCTION

The economic welfare in the recent development is not only measured by economic indicators such as economic growth and income levels. Even though it currently has been known the Human Development Index as an indicator of development, but it does not reflect the utility indicator that shows the people welfare. The economists in the worlds started to use a subjective indicator, which is the happiness as a form of holistic measure of utility by assuming satisfaction as the happiness. Frey and Stutzer (2002) states that the economists back to use the happiness as a mindset to measure the well-being of a group, the impact of policies, parameters of success of the government and others.

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For a long time, economists have conducted the research both quantitative and qualitative in order to explore a range of positive or negative factors that affect happiness levels in urban and rural communities. Bruni and Porta (2007) studies the population happiness level, then finds two paradoxical that in modern society urban income and happiness are always directly proportional, which point is supported by the neoclassical, especially Smith and Marshall, while in traditional societies which is located in rural areas that hold th traditional values and morals as an indicator of happiness, income is not always directly proportional with happiness.

The researches on happiness in the regions in Indonesia are still lack; and this research tries to be one of the concern on that area. This research aims to determine several influencing factors on individual happiness, by formulates the happiness index with specific weights of forming factors, which is conducted in Wonosobo regency, Central Java province, Indonesia. Wonosobo regency has the second largest population of regencies in Central Java province, with contains about 773,243 people and has the lowest population growth, which is 0.27 percent (Badan Pusat Statistik, 2016). Wonosobo community mostly lives in rural area and about 24.65 percent of population is classified as the pre-prosperous family.

This paper consists of five sections, following the introduction is literature review, discussing of the concept of happiness in economics, and several indicators related to it. Consecutively, the rest of the paper is organized as: research method, results and discussions, and conclusion.

Literature Review

The Concept of Happiness in Economics

In 1972, the country of Bhutan published the Gross National Happiness, which was followed by the world through the World Happiness Report (Layard, 2005) to measure the success of the development. The indicators used in the report were unique because it not only based on the GDP and economic growth. The happiness of a society would be different with other society so that in compiling the index of happiness, the instruments of the index are also differ between regions.

The sociology definition of the happiness reveals that no different with life satisfaction, which is defined as "over-all appreciation of one's life as a whole". The definition of happiness is in line with Jeremy Bentham thought about happiness, that is "the sum of pleasure and pains", the same meaning with life satisfaction and subjective well-being (Veenhoven, 1988). In psychology, the happiness uses the concept of subjective well-being as a state of well-being in general in a long duration that includes the affective and cognitive components. Subjective well-being is composed of happiness and life satisfaction. Subjective well-being is synonymous

with being happy while happiness is synonymous with feeling happy (Kahneman, 1999).

The study of the economics of happiness is expressed by Easterlin in 1974. The study finds the Easterlin Paradox, that is the paradox of happiness or income paradox. This paradox reveals that the increase in income does not increase a person's well-being or happiness (Easterlin, 2001). Other studies on economics of happiness expressed by Blanchflower and Oswald (2004), which states that the relative income plays an important role in increasing happiness. Stevenson and Wolfers (2008) and Clark and Senik (2011) discover the empirical fact that absolute income more than relative income plays an important role in affecting the well-being. Ball and Chernova (2008) find the absolute and relative income affect positively toward happiness, but the relative income has a greater role.

Happiness and Several Development Indicators

The happiness as an indicator of well-being is not only measured by the equivalent measurement to the consumption and income, but is also influenced by subjective indicators as a measurement of utilities such as education, religiosity, health, social life of the community, institutional and environmental quality.

Researches that associated with the variables of education and happiness are expressed by Michalos (2008); Chen (2012); Cunado and Garcia (2012). The empirical results stated that education directly and indirectly affects positively the subjective well-being. Education indirectly affects the happiness through productivity, enhance the work then influence happiness (Blanchflower and Oswald, 2004). Researches on the relationship well-being through health aspects on happiness are conducted by Green and Elliot (2009); Singer *et al.* (1999); (Dave *et al.,* 2008). Some studies suggest a reciprocal relationship between health and happiness. Health affects happiness positively, but on the other side, the happiness also has a positive effect on health. The relationship between health and happiness empirically also do not deal directly because it is influenced by other variables that affect health.

The link between social relationships variable to happiness can be identified from the trust that built inter-individuals or communities. Empirical evidences show that the higher the social capital the lower the suicide rate and the higher levels of subjective well-being (Helliwell, 2007). In addition, the research results of Bertolini *et al.* (2008) also show a positive correlation between several social capital proxies with happiness and life satisfaction. The relationship between the environmental quality and happiness are expressed by Rangel (2003) and Welsch (2002), which are found the negative relationship between between pollution (environmental degradation) with the individual's perception of feeling excited, comfortable and happy.

Research Method

The object of this study is communities across the district in Wonosobo regency, which are surveyed in August 2016. Based on the Slovin formula, we obtain about 403 respondents from 773,243 population of Wonosobo regency. This study calculate the index and employ a linear regression on variables that are defined as follows:

1. Dependent variables; Subjective well-being (SWB), which is defined as a person's cognitive and affective evaluation of his life. This evaluation includes an emotional assessment toward satisfaction and fulfilment in life. This index number is between 0-100.

2. Independent variables: Economic factors, such as income level that is approached with monthly household expenditure in rupiah currency; socio demographic factors that include family relationships, life satisfaction, health, religiosity; access to public facilities include public services received; changes in the environment; includes language culture and cultural value; and individual character. Each social demographic factor is detailed by a set of questions to rank the respondent's perception by using a Likert scale.

This study employs regression model with ordinary least squares method, and the regression equation is as follows:

$$W_i = a + \alpha_1 X_{1i} + \alpha_2 X_{2i} + \alpha_3 X_{3i} + \alpha_4 X_{4i} + \alpha_5 X_{5i} + \alpha_6 X_{6i} + \alpha_7 X_{7i} + \alpha_8 X_{8i} + \alpha_9 X_{9i} + \alpha_{10} X_{10i} + \mu_i \tag{1}$$

where, W = subjective well-being; X_1 = family relations; X_2 = satisfaction of life; X_3 = health; X_4 = environmental change; X_5 = cultural values; X_6 = public service; X_7 = expenses; X_8 = religiosity; X_9 = character individual; X_{10} = language culture; μ is error term; and subscript i indicates the cross section data attribute.

Results and Discussion

Subjective Well-Being and Statistic of Respondents

Table 1 shows the detail information of respondents. The estimation of happiness variable which is indicated by the subjective well-being shows that respondents in average have a high enough happiness. With the score range from 0 to 100, the average subjective well-being of respondents generate a score of 67. The happiness of the respondents are indicated by the emotion of enjoyable experience, the low levels of negative emotions, and the high satisfaction of life. Someone has a high level of subjective well-being whenever he or she was satisfied with his or her living conditions, and vice versa. The respondents on average show good enough satisfaction in his life, both cognitive and affective.

TABLE 1: CALCULATION OF INDEX

Variable	Quantity	%
Subjective Well-Being (score: 0-100)	403	67
Marital status		
• Married	206	51.12
• Single	192	47.64
• Widow	5	1.24
Number of families		
• ≤ 2	5	1.24
• >2 – 4	138	34.24
• >4 – 6	205	50.87
• <6	55	13.65
Citizenship		
• Local Indigenous Peoples	301	74.69
• Immigrant	102	25.31
Religion		
• Islam	391	97.02
• Christian	5	1.24
• Catholic	7	1.74

The composition of respondents by their marital status is consist of 51.12% married, 47.64% not married, and 1.24% of widows. On average, respondents have 5-6 family members, which is a large number in a family.

The survey finds that the majority of respondents are Wonosobo indigenous people, which is about 75% of the total population. Some of the respondents are migrants who have lived in Wonosobo for a long enough. Some of them are assigned to work in Wonosobo by their offices, or are migrated by economic drive to seek the better livelihood in Wonosobo.

The majority of Wonosobo population are Moslem, and so are the majority of respondents in this study. The number of respondents are 97% moslem and the rest are christian and catholic. The questions in the questionnaire which are asked to find out the religiosity, are regarding to the frequency of the activities of worship together. The cultures that held by the local community are still related to Islamic cultures.

Estimation Results

From the analysis of the economics of happiness of Wonosobo as shown in Table 2, is known that the variable life satisfaction, health, cultural values, public services, and language culture are statistically significant affect the society happiness in Wonosobo. Meanwhile, the family relationship, environmental changes, income (expenses), religiosity, and the individual characters are not statistically significant in affecting the community happiness in Wonosobo regency.

TABLE 2: ESTIMATION RESULTS OF ECONOMICS OF HAPPINESS

Variable	Coefficient	t-stat		Standardized coefficient	t-stat	
Constant	0.5367	7.5762	*			
Family Relation	0.0024	1.2993		0.0753	1.300906	
Life Satisfaction	0.0051	2.6544	*	0.1958	2.657759	*
Health	0.0038	1.8847	***	0.1041	1.887073	***
Environmental Change	-0.0006	-0.1756		-0.0089	-0.175838	
Cultural value	-0.0045	-2.2824	**	-0.1357	-2.285306	**
Public services	0.0151	4.4756	*	0.2583	4.481242	*
Expense	-0.0000	-1.0695		-0.0561	-1.070841	
Religiosity	-0.0014	-0.4737		-0.0282	-0.474309	
Individual character	-0.0036	-1.2934		-0.0955	-1.295202	
Language culture	-0.0101	-2.0912	**	-0.1436	-2.093827	**
R^2	0.1772			0.1772		
Adj. R^2	0.1562			0.1584		
F-stat	8.4415	*				

Note: *** significant at $\alpha = 1$ percent; ** significant at $\alpha = 5$ percent; * significant at $\alpha = 10$ percent;

From magnitude of the parameter related, the family relationship shows a positive sign on subjective well-being, which is consistent with Pavot and Diener (1993) in Linely and Joseph (2004: 681). Meanwhile, life satisfaction affect positively the subjective well-being. This finding is in line with Diener (2000) in Eid and Larsen (2008) which explains that the life satisfaction is a perception of individual satisfaction assessment in life with the their standards. The more individuals are satisfied with their lives the higher the subjective well-being a person has.

Health is closely related to happiness which is a socio-economic phenomenon (Sabatini, 2011). Seligman (2002) also agrees with Sabatini (2002), that happy people have good habits with regard to health. The more healthy the individual the happier the individual is. Healthy individuals tend to live of no burden on their physical condition, in contrast to individuals with has relatively lower health. The findings of this study show the similar results with those studies, that health affects positively and significantly to happiness.

The natural environment has a positive relationship with subjective well-being (Wilson, 1993). A natural environment reduces the stress level of the individual. In addition, the polluted environment creates negative effects on the physical and mental of individuals. However, this study finds no significant results on the effect of environmental quality on subjective well-being. This relationship is suspected that the environment condition of Wonosobo regency is still maintained its natural quality so as the community still feel comfortable in their place of residence. Moreover, Wonosobo regency is a mountainous area that has cool and fresh air. According to Wilson (1993), these environmental conditions can make people happier because of the same conditions in recreational.

The values of cultures can affect the cognitive, emotional, motivational, and behavioral systems that ultimately affect the public's happiness. The results of this research indicate that the changes in cultural values that increasingly deviate from normative culture will make subjective well-being down.

Access to public facilities contributes to happiness (Johns, 2007). Johns's study of government policies related to the level of happiness and the level of life satisfaction, finds that the level of life satisfaction in the 80s to 90s was relatively stagnant with an increase in economic indicators. More steadily from John's study, the results of this research indicate that public access to public facilities has a significant effect on subjective well-being.

The expenditure which is a proxy of individual income variable, is found not statistically significant affect the subjective well-being level. This indicates the existence of an easterlin paradox in which a country's GDP does not determine the level of happiness of its inhabitants. The similar conclusion is expressed by Frey and Stutzer (2002), that there is a contradiction in which the higher-income regions or countries that have no higher happiness.

In Frey and Stutzer (2002), it pointed out that there is an aspect of someone's spiritual condition or so-called religiosity, in which this aspect is identified to has a positive correlation to he's or she's level of happiness. This research finds that religiosity has no statistically effect on subjective well-being, which indicates that the variable is not a consideration in one's happiness in Wonosobo. This may indicate that religious practice is a daily behavior that has become a part of people's lives. Meanwhile, the individual character in this research is the assessment of individual properties of a person to him-self or her-self that includes the value of an individual's social. In this study, individual character variables such as patient, fair, forgiving and others have no significant effect on the level of happiness.

Culture and language have the aspects of local wisdom, in which the people of Wonosobo relatively use the Java language in daily life (Badan Pusat Statistik, 2016). This research concludes that the language brought by individuals has a significant effect on the level of subjective well-being, however it negatively effect. There are various explanations of why there is a negative or inappropriate relationship as the literature. One of the reasons is the characteristics of respondents such as young age, where they live. Based on field observations, it is known that the language is the Java but they are open to use other languages such as Sundanese and the national language, Bahasa Indonesia.

In addition to unstandardized, the regression is run in standardized coefficient to identify the comparison of influence between independent variables. Based on the standardized regression, the research finds that the public services is the variable that has the most effect to the subjective well-being of individual in Wonosobo regency (Table 2). The regression results both standardized and unstandardized demonstrate the robust parameters which are indicated by homoscedastic (based

in White test without cross term among independent variables) and no cross-correlation (based on the DW statistic) of the residuals.

Conclusion

Based on the happiness index numbers (SWB), Wonosobo regency is indicated to have high enough of the SWB figures, which means that the whole population of Wonosobo regency are in a state of happiness. From the estimation results, the economics of happiness in Wonosobo, it be evidenced that the relationship between variables in the empirical model are statistically consistent with the hypothesis of theoretical model.

Based on the analysis, it is indicated that economic factors alone does not guarantee in influencing the happiness of society in Wonosobo, which is identified from insignificant economic factors such as income. Economic development is needed to improve the quality and adequacy of the necessities of life, and accompanied with real programs that can boost happiness as improvements in public services and the provision of public facilities.

Improving the quality of healthcare by improving health facilities is an appropriate policy, in addition to the attention of policy makers to the problems of art and culture as a whole, especially the traditional art should be improved continually.

Some factors remain to be assessed the linkages with the happiness such as religiosity and values change. In a subsequent study, it can be developed a more precise measurement of the variables.

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