Social capital dimensions and individual happiness in Indonesia: The micro-level study

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Abstract: The Easterlin Paradox triggers the use of happiness as a measure of Wellbeing. The welfare can be measured by monetary measurement and comprehensive to subjective measurement, one of which is social capital. This study shows the influence of social capital on the level of individual happiness in Indonesia. The study uses the 2007 and 2014 Indonesia Family Life Survey (IFLS) data. Using the Logit Regression Panel, the results show a positive influence on social capital, which contains trust, social networks, and sanctions and norms on several dimensions on the level of individual happiness. We also found that individual happiness levels are based on age, marital status, income level, education level, health status. Therefore, we need programs that prioritize community participation to increase informal social interaction and the need for effective programs to accelerate community income.

Keywords: welfare, individual happiness, social capital

JEL Classification: C10, I31, R10

1. INTRODUCTION

During the last few decades, the world has increasingly realized that the measurement of population welfare is fundamental to be examined more deeply. It is based not only on objective measurements that usually use monetary measures (Gross Domestic Product and individual income or expenditure) and comprehensive down to subjective measurements or so-called happiness levels. This is because the welfare indicators should describe conditions of material prosperity (welfare or Wellbeing) and lead to conditions where everyone cares about their health, neighbors, family, beliefs, and other similar factors (Graham and Pettinato, 2004; Tian and Yang, 2007).

Happiness as an indicator of welfare became a hot topic after Easterlin (1974) proved with data in America that at a certain point, the level of happiness in society no longer increased when economic growth and people's income increased. This is known as the Easterlin Paradox. Income cannot significantly explain an individual's level of happiness or Wellbeing. This is a critical reason for researchers to look for the factors that influence individual happiness. The study of Bartolini and Sarracino (2014) using data from the World Values Survey European Values Study (WVS/EVS) and the European Social Survey (ESS) found that the level of happiness, also called the level of subjective welfare, has a much healthier relationship with social capital than with GDP in the medium term and long term. This reinforces the condition of centrality, and the emphasis on GDP must be reduced, and other variables (social capital) must take a more prominent role (Bjørnskov, 2008).

Social capital is a concept that is still vague and intangible (Rodríguez-Pose and Berlepsch, 2014). This is because social capital is multidimensional, with each dimension contributing to the...
meaning of social capital (Hean et al., 2003). In general, social capital is described as the interaction between many individuals and social groups considered necessary for economic development (Han et al., 2013; Helliwell, 2006; Subramanian et al., 2005). It is an idea or idea that individuals and groups can derive resources from their relationships with one another. Resources include information, ideas or ideas, guidance, business opportunities, financial strength and capital, emotional support, reputation, trust, and cooperation (Inglehart and Baker, 2000).

There are three main pillars of social capital (Putnam, 2000), and it has become the most popular and widely used social capital approach to date concerning organizational features. The three pillars are trust, social networks, and sanctions and norms. Nearly all of the previous research we found has proven that social capital positively affects individual happiness. Some of these studies are Helliwell and Barrington-Leigh (2010) and Leung et al. (2011) in Kanda; Becchetti et al. (2008) and Winkelmann (2009) in Germany; Tsuruta et al. (2019) in Japan; Bartolini and Sarracino (2014) in Europe; and Ghamari (2012) in Iran.

Meanwhile, studies on this subject have also been carried out in Indonesia, including Alawiyah and Held (2015) and Rahayu and Harmadi (2016). However, no studies have explored the relationship between social capital and individual happiness. We wanted to determine whether social capital, which consists of indicators of trust, social networks, and sanctions and norms, affects individual happiness levels in Indonesia. The choice of variables in this study has similarities with Putnam (2000) and Rodríguez-Pose and Berlepsch (2014).

Furthermore, a second section presents a literature review on theories related to happiness and measuring the level of happiness. The data sources, models, and methods we use are shown in section three, results, and discussion in section four, and the last part is the conclusion.

2. LITERATURE REVIEW

2.1. Theory of Happiness

In Indonesia, the level of subjective welfare is juxtaposed with the level of happiness. BPS does this by issuing a happiness index that represents the level of personal welfare. Seligman (2004) introduces the authentic theory of happiness. The authentic theory states that happiness involves a pleasant life, a good life, and a meaningful life.

Furthermore, Seligman (2004) emphasized by formulating a formula of the factors relevant to happiness. The level of happiness (H) is determined by the set range of happiness (S), circumstances in life (C), and voluntarily-controlled factors (V), which can be written mathematically as follows:

\[ H = S + C + V \] (1)

Circumstances in life or life circumstances are one of the most emphasized because they can better happiness. Happiness is not only a matter of finding what the individual wants but is mostly determined by the type of circumstances in which the individual lives (Frey and Stutzer, 2000).

The most common economic concept that can be juxtaposed with happiness is utility. Several assumptions have in common between the two, such as an individual's rational choice of something, optimization approach (optimizing happiness, and optimizing utility). Both can be compared on an inter-individual basis. If the utility is satisfied with the consumption or use of two goods or services, happiness can also have the same analogy. Tian and Yang (2007) classify two determinants of happiness: consumption or ownership of material goods or income goods. Second is non-income goods such as human rights, family life, social capital, democracy, divorce rate, health, etc.

Another classification used in the economic literature was also introduced by Frank (1985). He divides the determinants of happiness into two classes, namely positional goods and non-positional goods. Positional goods mean that the goods have substantial value when compared to goods owned by other people. Non-positional goods mean that the goods have no or less value when compared to others. This group division is based on Frank's argument, which says that the modern individual is trapped in the race or competition of life.
2.2. Measurement of Happiness

Many argue that happiness should not be the subject of scientific explanation. This is because it is not possible to measure it objectively. However, Larsen and Eid (2008) provide another view that happiness is subjective; people will be happy if they think they are also happy. Each individual will be a judge who will judge himself. Therefore, he argues that happiness can be measured by formulating a calculation called subjective Wellbeing. To measure the level of happiness, explanations of subjective welfare measures can be obtained through questions such as: (1) Are you happy, very happy, unhappy, very unhappy?; and (2) How do you rate your happiness on a scale of 1-10?

Compton (2005) adds that subjective welfare can be viewed from two main sides: satisfaction in life and happiness. The variables included include self-esteem, optimism, degree of extroversion, positive social relationships, personal control, and purpose, and meaning in life.

Indonesia, through the Central Statistics Agency (BPS), also measures the level of happiness using the Happiness Level Measurement Survey (SPTK), which is an adaptation of the Organization for Economic Co-operation and Development (OECD). SPTK is implemented to produce happiness indicators for the Indonesian population with a life satisfaction approach (BPS, 2017). Apart from BPS, the Indonesia Family Life Survey (IFLS) also surveyed to measure the level of happiness by asking respondents, "Considering the current situation, do you feel that you are pleased, happy, unhappy or very unhappy?". This question can reflect Subjective Wellbeing. Happiness in the economy is often used as an evaluation tool and a hedonic account, both of which are part of the Subjective Wellbeing (MacKerron, 2012) so that the available data can measure happiness in Indonesia.

3. MATERIALS AND METHODS

3.1. Data

This study’s source of all the variables is the 2007 and 2014 Indonesia Family Life Survey (IFLS) data provided by the RAND Corporation. This survey data covers 13 provinces in Indonesia covering all provinces in Java, Bali, West Nusa Tenggara, South Sulawesi, South Kalimantan, South Sumatra, Lampung, West Sumatra, and North Sumatra. Respondents surveyed in 2007 were again surveyed in 2014 so that it is possible to obtain panel data with a large number of observations.

3.2. Model

In investigating the effect of social capital on the level of individual happiness in Indonesia, we use the Logit Regression Panel because the dependent variable for the level of individual happiness \( I(\text{HL}) \) is a dummy variable, one if individual \( i \) is happy and has a value of 0 if unhappy. In general, the logit panel models that are often used are the fixed effect (FE) and the random effect (RE). Because the panel data we use consists of many observations, there are only two-time variations (time-invariant); we chose the random effects (RE) model. Meanwhile, the empirical model formed in this study is as follows:

\[
\text{HL}_{it} = \beta_0 + B_1 \text{SocCap}_{it} + B_2 \text{Age}_{it} + B_3 \text{Age}^2_{it} + B_4 \text{Gender}_{it} + B_5 \text{MarStat}_{it} + B_6 \ln \text{Income}_{it} + B_7 \text{Edu}_{it} + B_8 \text{Health}_{it} + B_9 \text{Urban}_{it} + \mu_{it} \quad (2)
\]

In the IFLS data, there are four categories, namely (1) very happy, (2) happy, (3) unhappy, and (4) very unhappy. However, because the number of respondents who answered very happy and very unhappy was deficient, respondents who answered very unhappy in 2007 were only 1.06 percent. In 2014 only 0.30 percent, so we classified them into only two categories, happy and unhappy. The same thing was done by Rahayu and Harmadi (2016).

Meanwhile, the independent variable social capital (SocCap) consists of three indicators: trust, social networks, and sanctions and norms with their respective dimensions, all of which are dummy variables with values of 1 and 0. First, the indicators of trust that describe individual trust in society
both individually and in groups consist of various dimensions: trust in neighbors, trust in the police, trust in others, trust in entrusting children to neighbors and being alert not to be used by others. Second, social network indicators that include individual participation in momentum or organizational activities or the like. In this indicator, the dimensions used are participation in trade unions, willingness to help residents, participation in a social gathering, participation in religious activities, and community meetings participation. Third, indicators of sanctions and norms are measured from the functioning of norms and the effectiveness of sanctions in society. There are two dimensions used: security in the village or urban village and security for walking at night alone.

As a control variable, we use personal characteristics that are proxied by age (Age), age squared (Age2) to see their effect in the long run, sex (Gender) expressed in the dummy variable if the male is one and female is 0. The marital status of individual (MarStat) is also stated in the dummy variable, with a value of 1 being unmarried and 0 having been married, which consists of categories of married, separated, divorced, and divorced. Besides, other variables are also used such as income (LnIncome), which is measured by the natural logarithm of income for the last twelve months in rupiah units, an education level (Edu) where each level of education from the lowest level (kindergarten or equivalent) to the highest level (S3 or doctoral program). Each class/level is measured starting from the lowest level 0 and the highest 22. Then the health status (health) is measured by four health scales, including (1) unhealthy, (2) unhealthy, (3) relatively healthy, and (4) very healthy, and lastly is the location of residence (residence), which is stated in dummy form, one if the individual lives in a city and 0 if the individual lives in a village.

4. RESULTS AND DISCUSSION

4.1. Description of Variable Statistics

Tables 1 and 2 provide statistical descriptions of the variables used in this study. To make it easier to read and present, it is divided into two different tables. Table 1 contains statistical descriptions of the variables expressed in dummy or binary scales. Meanwhile, Table 2 contains variables that are not stated on a dummy scale or a non-binary scale.

| Table 1. Descriptive Statistics of Binary Scale Variables |
|---------------------------------|-----------|--------|--------|-----------|--------|--------|-----------|
| Variable                        | Group     | 2007   |         | 2014     |         |        |
|                                 |           | Obs.   | Freq. (%)| Obs.      | Freq. (%)|
| HL                              | 0 (not happy) | 5301  | 445    | 8.39  | 4718  | 350    | 7.42      |
|                                 | 1 (happy) | 4856  | 91.61  |        | 4368  | 92.58  |
| Trstneighbour                   | 0 (not trust) | 5301  | 1061   | 20.02 | 4718  | 1186   | 25.14     |
|                                 | 1 (trust) | 4240  | 79.98  |        | 3532  | 74.86  |
| Trst police                     | 0 (not trust) | 5301  | 1631   | 30.77 | 4718  | 992    | 21.03     |
|                                 | 1 (trust) | 3670  | 69.23  |        | 3726  | 78.97  |
| Trst stranger                   | 0 (not trust) | 5301  | 4483   | 84.57 | 4718  | 3607   | 76.45     |
|                                 | 1 (trust) | 818   | 15.43  |        | 1111  | 23.55  |
| Leave house                     | 0 (not trust) | 5301  | 712    | 13.43 | 4718  | 911    | 19.31     |
|                                 | 1 (trust) | 4589  | 86.47  |        | 3807  | 80.69  |
| Leave child                     | 0 (not trust) | 5301  | 1510   | 28.49 | 4718  | 1708   | 36.2      |
|                                 | 1 (trust) | 3791  | 71.51  |        | 3010  | 63.8   |
| Alert                           | 0 (not alert) | 5301  | 4955   | 93.47 | 4718  | 4101   | 86.92     |
|                                 | 1 (alert) | 346   | 6.53   |        | 617   | 13.08  |
| Labour uni                      | 0 (not join) | 5301  | 4746   | 89.53 | 4718  | 4152   | 87.43     |
|                                 | 1 (join)  | 355   | 10.47  |        | 593   | 12.57  |
| Help                            | 0 (will) | 5301  | 27279  | 99.49 | 4718  | 29     | 617       |
|                                 | 1 (will not) | 5301  | 0.51   |        | 4689  | 99.99  |
| Arisan                          | 0 (not join) | 5301  | 3695   | 69.7  | 4718  | 2698   | 57.19     |
|                                 | 1 (join)  | 1606  | 30.3   |        | 2020  | 42.81  |
| Part rlgi evnt                  | 0 (not join) | 5301  | 1756   | 33.13 | 4718  | 1321   | 28        |
|                                 | 1 (join)  | 5301  | 3545   | 66.87 | 4718  | 3397   | 72        |

https://ejournal.unsri.ac.id/index.php/jep/index
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Table 2. Descriptive Statistics of Non-Binary Scale Variables

| Variable | Group | 2007 |  | 2014 |  |
|----------|-------|------|---|------|---|
|          |       | Obs. | Freq.| (%)  | Obs. | Freq.| (%)  |
| Part soc evnt | 0 (not join) | 5301 | 2738 | 51.65 | 4718 | 2238 | 47.44 |
|          | 1 (join) |      | 2563 | 48.35 |      | 2480 | 52.56 |
| Secure | 0 (Secure) | 5301 | 125 | 2.36 | 4718 | 177 | 3.75 |
|          | 1 (Not secure) |      | 5176 | 97.64 |      | 4541 | 96.25 |
| Walk night | 0 (Secure) | 5301 | 209 | 3.94 | 4718 | 635 | 13.46 |
|          | 1 (Not secure) |      | 5092 | 96.06 |      | 4083 | 86.54 |
| Gender | 0 (female) | 5301 | 1666 | 31.43 | 4718 | 1767 | 37.45 |
|          | 1 (male) |      | 3635 | 68.57 |      | 2951 | 62.55 |
| MarStat | 0 (Married/ever) | 5301 | 5155 | 97.25 | 4718 | 4592 | 97.33 |
|          | 1 (Single) |      | 146 | 2.75 |      | 126 | 2.67 |
| Urban | 0 (rural) | 5301 | 2607 | 49.18 | 4718 | 1860 | 39.42 |
|          | 1 (urban) |      | 2694 | 50.82 |      | 2858 | 60.58 |

Source: IFLS 2007 and 2014

4.2. Estimation Results

The logit panel estimation results are presented in Table 3. These results can be interpreted through the odds ratio and marginal effect values. In contrast, the logit value only shows the direction of the independent variable’s influence on the dependent variable. The value on the odds ratio is used to see the probability of the independent variable’s influence on the dependent variable. Meanwhile, the marginal effect’s value shows the magnitude of the change in the probability of the dependent variable when the value of each independent variable changes.

In the first indicator, significant dimensions that can represent the effect of social capital on happiness are trusted in neighbors, trust in entrusting children to neighbors, and vigilance so that people do not take advantage of them. Meanwhile, the dimensions of trust in the police, trust in strangers, and trust in entrusting a house to neighbors do not significantly affect the level of individual happiness. The dimension of trust in neighbors is significant at the 5 percent level. Individuals who believed in their neighbors were 1.28 times happier than individuals who did not believe in their neighbors, assuming other variables were constant. The change in the probability of individuals’ happiness level who believe in their neighbors will increase by 1.39 percent.

The second indicator that is part of social capital is social networks. The dimension that affects the level of individual happiness is associated with happiness. It participates in arisan (a form of Rotating Savings and Credit Association in Indonesian culture) and participation in religious activities. Meanwhile, the two dimensions used significantly affect Indonesia’s individual happiness on the indicators of sanctions and norms. Of the seven control variables used, only two variables did not significantly affect individual happiness in Indonesia, namely gender and place of residence.
### Table 3. Panel Logit Regression Results

| Variable           | Coefficient | Standard error | odds ratio | Standard error | Marginal effects | Standard error |
|--------------------|-------------|----------------|------------|----------------|------------------|----------------|
| Trstneighbour      | 0.254**     | 0.1016         | 1.289**    | 0.131          | .0139**          | 0.005          |
| Trst police        | -0.0261     | 0.1            | 0.9742     | 0.0975         | -0.00134         | 0.00515        |
| Trst stranger      | 0.135       | 0.123          | 1.144      | 0.1409         | 0.00676          | 0.00599        |
| Leave house        | -0.0542     | 0.1292         | 0.9472     | 0.1223         | -0.00277         | 0.00652        |
| Leave child        | 0.268***    | 0.1034         | 1.307***   | 0.1351         | .0144***         | 0.00577        |
| Alert              | -0.231*     | 0.1328         | 0.7938*    | 0.1054         | -0.0128*         | 0.0079         |
| Lubour uni         | -0.165      | 0.1587         | 0.848      | 0.1346         | -0.008           | 0.00906        |
| Help               | -0.0111     | 0.5306         | 0.988      | 0.5247         | -0.0005          | 0.02731        |
| Arisan             | 0.337***    | 0.1048         | 1.400***   | 0.1467         | .01688***        | 0.00507        |
| Part rgli evnt     | 0.256***    | 0.0972         | 1.291***   | 0.1256         | .0138***         | 0.00542        |
| Part soc evnt      | -0.153      | 0.0951         | 0.858      | 0.0816         | -0.0079          | 0.00493        |
| Secure             | 0.619***    | 0.2232         | 1.857***   | 0.4146         | .0400***         | 0.01745        |
| Walk night         | 0.274*      | 0.1595         | 1.315*     | 0.2099         | .01553*          | 0.00979        |
| Age                | -0.0841***  | 0.024          | 0.9193***  | 0.0223         | -0.0043***       | 0.00125        |
| Age²               | 0.000712*** | 0.0002         | 1.000***   | 0.0002         | .00003***        | 0.00001        |
| Gender             | -0.0771     | 0.1106         | 0.9257     | 0.1024         | -0.0039          | 0.00563        |
| MarStat            | -0.704**    | 0.2766         | 0.4948**   | 0.1368         | -0.04691**       | 0.02284        |
| Lnlncome           | 0.337***    | 0.0411         | 1.400***   | 0.0575         | .0174***         | 0.002          |
| Edu                | 0.105***    | 0.0127         | 1.110***   | 0.0141         | .0054***         | 0.00062        |
| Health             | 0.635***    | 0.0768         | 1.89***    | 0.1449         | .03292***        | 0.00382        |
| Urban              | 0.024       | 0.0929         | 1.024      | 0.0952         | 0.0012           | 0.00484        |
| Constant           | -4.092***   | 0.9607         | 0.0167***  |               |                  |                |

Obs. 10,019  
N of pidlinkcode 7,948  
Prob > Chi² 0.000  

Note: The signs ***, **, and * indicate statistically significant at α 1%, 5% and 10%, respectively. 

Source: STATA Output

### 4.3. Robustness test

Partial tests and simultaneous tests were conducted to test the dimensions' resilience as a representative indicator of social capital on the level of happiness. In appendix 1, all dimensions of social capital that simultaneously affect happiness are also partially significant. These dimensions fall into powerfully robust and robust categories. There is one dimension when the test is partially significant, but it is simultaneously not significant against other dimensions. This dimension is trust in foreigners. This resilience test confirms that the dimensions of social capital used in this study are appropriate for predicting individual happiness. The summary of the robustness test results can be seen in Table 4.

We also tested several estimation methods with the same variables. Tests are carried out by logit fixed effect, logit ordinary, and logit random effect. The results show that using ordinary logit and logit random effects has similarities in dimensions that significantly affect individual happiness levels. Meanwhile, the logit fixed effect gives unfavorable results by showing the only significant social capital dimension in religious participation. This is in line with the estimation model's suitability. The logit fixed-effect method is not good at showing the significance level but good at showing the coefficient value. The complete estimation results can be seen in Appendix 2.
Table 4. Summary of Robustness test

| Classification | Definition | Dimension |
|----------------|------------|-----------|
| **Strongly Robust** | Powerfully Robust Partially and simultaneously significant, and the regression coefficient is not much different. | a. Trust entrusts children to neighbors  
b. Joining Arisan  
c. Participation in religious activities  
d. Safety in the neighborhood |
| **Robust** | Robust Partially and simultaneously significant, and the regression coefficient is not much different. | a. Trust in neighbors  
b. Be vigilant not to be used by others. Participate in religious activities  
c. Security walks the night alone |
| **Weakly Robust** | Weakly Robust Only significant simultaneously or partially. | a. Trust in foreigners (partial) |

**Source:** Appendix 1

4.4. Discussion

Social capital is a vital and influential part of predicting the level of happiness (Helliwell and Putnam, 2004; Leung, 2011). Based on previous studies, social capital has a positive relationship to the level of individual happiness (Ateca-Amestoy et al., 2014; Bartolini and Sarracino, 2014; Becchetti et al., 2008; Bruni and Stanca, 2008; Chan and Lee, 2006; Hean et al., 2003; Helliwell, 2006; Helliwell and Putnam, 2004; Jumirah and Wahyuni, 2018; Portela et al. 2013; Putnam, 2000; Rodríguez-Pose and Berlepsch, 2014).

The estimation results indicate a positive effect of social capital consisting of trust, social networks, and sanctions and norms on several dimensions on the level of happiness as an illustration of Indonesia's level of individual personal welfare. In general, ownership of social capital by individuals can increase the chances of their level of happiness.

The estimation results in Table 3 show that trust indicators that provide significant results on the level of individual happiness are trusted in neighbors, trust in entrusting children to neighbors, and being alert to not being used by others. The first two dimensions produce a positive relationship to happiness, while the last dimension produces a negative relationship. However, this negative relationship still has a positive meaning where people who are not alert will have a higher chance of being happy. Paldam and Svendsen (2000) divide the trust into two types, namely general trust (trust in individuals in general) and extraordinary trust (trust in known people or individual institutions). This argument supports this study, which looks at trust in others (not being aware of others) in general terms and trust in neighbors seen from the side of people they know.

Guiso et al. (2004) explain the phenomenon of trust as an indicator of social capital in the context of microcredit. Trust and solidarity between individuals can reduce asymmetric information (information that is not entirely spread out) and credit risk. Trust overcomes asymmetric information through horizontal relationships between group members that can correctly and accurately disseminate information, avoid covert actions by one individual, eliminate transaction costs, and reduce imperfect operational constraints. Individual happiness will be formed with the benefits obtained when the individual has social capital. Research in Indonesia that emphasizes trust as a strong indicator of social capital was conducted by Cahyono (2014), who examined the impact of social capital on tobacco farmers' welfare in the Wonosobo Regency. The results found that to strengthen social capital, it is necessary to strengthen social institutions by focusing on strengthening trust, mutual respect, and mutual benefits by paying attention to cultural factors and overall values.

Social network indicators are also proven to have a significant effect on the level of individual happiness. Individuals who have social networks will have a lot of information and closeness to other individuals to provide economic benefits. Canaani (2006) explains that extroverted individuals are happier because of the many and extensive social relationships. In this study, the dimensions of...
social networks that significantly affect individual happiness are joining arisan and participating in religious activities. Both are proven to have a positive influence on being able to increase individual chances of being happy.

One of the seminal papers on social capital by Coleman (1988) explains that one of the benefits of social networks is information dissemination. Information channels can be divided into two forms: social relations with family or friends and community involvement. This study's findings are in line with these arguments where arisan is an activity related to family or friends and religious activities, which are activities related to the community.

This study's findings are in line with these arguments where arisan is an activity related to family or friends and religious activities, which are activities related to the community. Han et al. (2012), in their study in Seoul, South Korea, found that individuals who participate in one or more organizations are more satisfied or happy with their lives than individuals who do not participate. Meanwhile, other research conducted by Winkelmann (2009) in Germany shows that people who attend cultural events and church services are involved in sports activities, who visit friends, relatives, or neighbors and who are involved in voluntary work in political organizations. And are socially happier with their lives than people who do not participate in these activities. Acquaah (2011) examined the use of social capital by MSMEs and owner in Ghana. He found that MSME owners who have social networks to raw material producers, distributors, customers, communities, politicians, and the government get various business development information. The information obtained starts from business opportunities, land access, building construction, regulations, and financial sources to MSMEs' target market. The intensity of interpersonal relationships increases the rate of diffusion of information as a source of knowledge between individuals, which makes individuals happier or more prosperous (Rodríguez-Pose and Berlepsch, 2014; Nasution et al. 2014).

Meanwhile, the dimensions of social networks that do not significantly affect happiness are participation in trade unions, willingness to help residents, and participation in community meetings. The relationship shown to individual happiness is also the opposite of the two dimensions that significantly affect. If examined more deeply, the three indicators have similarities, namely individual participation in them is voluntary or willing. Meanwhile, two dimensions of social networks that significantly affect happiness, namely, participation in arisan and participation in religious activities, are mandatory following applicable norms and teachings. Participatory participation in these two dimensions leads to intensive relationships and interactions between individuals to provide mutual benefits. To make individuals happier than the benefits they get.

The effectiveness of sanctions and norms is one of the indicators of forming social capital. This indicator is the most abstract in shaping social capital because of its various forms (Leung et al., 2011). The more significant the sanctions and norms in society, the higher the social capital an individual has. This study explains the effectiveness of sanctions and norms with a sense of security felt by individuals in the village/urban village and security for walking alone at night. This study indicates that the safer the environment's condition is felt by the individual, the more the individual's chances of being happy are increased. Individuals' safe conditions can facilitate useful activities to run well and limit actions not desired by individuals (Leung et al. 2011). Individuals who feel safe in their environment will develop stronger bonds in their community. The impact can facilitate trade, reduce transaction costs, reduce information costs due to easy access, trade without contracts, make citizens more responsible and allow for collective management of resources (Woolcock and Narayan, 2000). Finally, when the sanctions and norms have been useful, they can be used to align society's interests/desires as a whole and lead to happiness.

Age as a control variable in this study has a significant effect on the level of individual happiness. Increasing age every year affects decreasing individual chances of being happy. These results are in line with Czapsinski's (2011) findings in his study in Poland, who found that increasing age will decrease the level of individual happiness. The study found that in Poland, non-socio-economic factors have a more significant influence on individual happiness levels. Happiness is very much related to expectations; the older an individual is, the more expectations are broken.

The thing that had been dreamed of since he was young when he entered the implementation time did not happen. As a result, it decreases individual happiness in line with increasing age.
However, this decline only occurred to a certain point. After passing this point, there will be an increase in individual happiness. This is indicated by the results of the individual age square regression with a positive coefficient. These results indicate a nonlinear relationship between individual age and the level of individual happiness in Indonesia, which forms a U curve. Individual happiness initially decreases, but at certain ages, it will increase. In the young and old age groups, individuals feel happy, where middle age is the most unhappy age group (Tsui, 2014).

Individuals with never-married status have a lower chance of being happy than individuals who have been married, regardless of whether they are widowed or widower, separated and divorced. This is in line with Tsui (2014), which found that individuals who have or have been married will have a higher level of happiness than individuals who have never married. Married individuals can benefit from mutual intimacy, friendship, and sharing. Navaitis et al. (2016), in their study in Lithuania, found that marital status is one of the factors that lead to happy individuals. It is difficult for individuals with the status of a widow or widower to measure the impact because it will again be influenced by gender and the length of time that the individual experiences the status.

The income level is proven to influence individual happiness positively—the higher the individual income, the more excellent the individual's opportunity to be happier. This study's findings are different from what Easterlin (1974) said through the Easterlin Paradox, which states that the individual's level of happiness does not follow an increase in income at a certain point. Two views can explain this condition. First, the robustness expressed by Easterlin (1974) has been refuted by Stevenson and Wolfers (2008) and Sacks et al. (2010), who used the same approach as Easterlin (1974). They found that income and happiness had a positive relationship over time. Easterlin failed to distinguish the time dimension between the long term and the short term in his research. Easterlin argues that when an individual's physical needs (income) are met, the individual will increase other aspects such as leisure and social interaction. This view can be argued that physical needs are recurring needs. When today's physical needs are met, it does not mean that they will also be met in the future. The fulfillment of physical needs will continue to be needed and become a determinant of individual happiness. Second, in their research, Tian and Yang (2005) concluded that income is essential in increasing happiness in the early stages of economic development when basic needs are partially met. However, when there is an increase in society's income class, the possible effects on happiness can be small, non-existent, and even harmful. According to this study's findings, the condition of Indonesia, which is still in the stage of economic development, is categorized as a developing country. This finding is also in line with findings in many developing countries where income is still essential in determining happiness. Finally, this study shows that the Easterlin Paradox phenomenon does not occur in Indonesia.

The level of education has a significant effect on the level of individual happiness. This research proves that when an individual's level of education increases one level, the individual's chances of being happy also increase. Based on research conducted by Leung et al. (2011), he explained that education has a significant effect on happiness, but it is small (Layard, 2006). This condition, according to Michalos (2008), can only apply if it meets three conditions. First, the education indicators used are limited to formal education from the primary, secondary and tertiary levels. Second, happiness is only measured using a single indicator or multiple indicators used as an index. Finally, a view that only looks at the direct impact of educational measures on happiness is determined by the first and second conditions. This research is in line with the conditions above. Even though it only has a small effect on individual happiness, education significantly improves individual welfare. Individuals with higher education levels can gain access and opportunities to be happier in the future (Blanchflower and Oswald, 2004).

Health status is the last control variable in this study, which influences the level of happiness. Healthy individuals have a significant effect in a positive direction on the level of happiness. This means that healthier individuals have a higher chance of being happy. Individuals who can be fully productive are individuals who have a "healthy" health status. Nutritional status is a condition that must be met in order for individuals to function in society. Angner et al. (2012) examined, more specifically, the types of diseases associated with happiness. His findings said that individuals who had prostate cancer but did not interfere with their daily activities scored higher on happiness than
individuals with urinary incontinence (loss of bladder control). The negative social stigma that is formed against several diseases can also integrate individual happiness (Crivelli and Lucchini, 2017). People who are not healthy still have the opportunity to be happy. What causes the individual to be unhealthy does not interfere with their daily activities, and there is no negative social stigma formed against the individual.

5. CONCLUSION

This Based on a series of studies that have been carried out from the background to the discussion analysis, the conclusions of this study can be formulated, namely: (1) Social capital consisting of trust, social networks and sanctions and norms has been proven to increase the level of individual happiness in Indonesia during the year 2007 and 2014; (2) Indicators of trust that can affect the level of happiness are trusted in neighbors, trust in entrusting children to neighbors, and vigilance so that others do not use them. Social network indicators that can affect happiness are individual participation in attending arisan and individual religious activities. The last indicator of social capital, sanctions, and norms affects the level of happiness through the dimensions of security felt by individuals in the village/urban village environment and security for walking at night alone; (3) Other factors that increase the level of individual happiness in Indonesia are income level, education level, and health status, while what decreases individual happiness is unmarried marital status. Age decreases happiness at first, but at some point, increases happiness.

Social capital is proven to be used in influencing the level of individual and social happiness. Therefore, policymakers need to explore how public policies can support social capital formation to increase happiness. Concerning our results, efforts may need to encourage primarily informal social interactions, interpersonal trust, and trust in the institutional system by optimizing each layer’s instruments, from the sub-district, urban village, and hamlet, neighborhood, and family. It is essential to strengthening informal social interactions that lead to increased community participation because this is closely related to aspects of trust, including creating a safe and secure atmosphere. Furthermore, when community participation has increased, the government facilitates community economic acceleration by fostering home industries, village-owned enterprises, and micro, small, and medium enterprises to increase community happiness.

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### Appendix

#### Table A: Partial and Simultaneous Estimation

| Variables          | Model 1          | Model 2          | Model 3          | Model 4          | Model 5          | Model 6          | Model 7          |
|--------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| Trstneighbour      | 0.363***         | -0.0769***       | -0.0761***       | -0.0766***       | -0.0790***       | -0.0748***       | -0.0762***       |
| Trst police        | -0.0241          | -0.0241          | -0.0241          | -0.0241          | -0.0241          | -0.0242          | -0.0241          |
| Trst stranger      | 0.219*           | -0.0977          | -0.0979          | -0.0982          | -0.1017          | -0.0979          | -0.1017          |
| Leave house        | 0.182            | 0.339***         | 0.0943           | 0.0939           | 0.0936           | 0.0936           | 0.0936           |
| Leave child        | 0.018            | -0.117           | -0.121           | -0.121           | -0.121           | -0.121           | -0.121           |
| Alert              | -0.278**         | -0.133           | -0.149           | -0.159           | -0.159           | -0.159           | -0.159           |
| Lbour uni          | -0.179*          | -0.157           | -0.165*          | -0.171*          | -0.182*          | -0.182*          | -0.182*          |
| Help               | -0.689**         | -0.704**         | -0.710**         | -0.697**         | -0.726**         | -0.726**         | -0.726**         |
| Arisan             | -0.026           | -0.026           | -0.026           | -0.026           | -0.026           | -0.026           | -0.026           |
| Part rlig evnt     | -0.0409          | -0.0408          | -0.0408          | -0.0408          | -0.0408          | -0.0408          | -0.0408          |
| Part soc evnt      | -0.0125          | -0.0125          | -0.0125          | -0.0125          | -0.0125          | -0.0125          | -0.0125          |
| Secure             | -0.00973         | -0.0281          | -0.0324          | -0.0324          | -0.0324          | -0.0324          | -0.0324          |
| Walk night         | -0.672***        | -0.692**         | -0.692**         | -0.688**         | -0.680**         | -0.687**         | -0.692**         |
| Age                | 0.333***         | 0.331***         | 0.329***         | 0.333***         | 0.335***         | 0.332***         | 0.335***         |
| Age2               | 0.0106***        | 0.108***         | 0.107***         | 0.109***         | 0.110***         | 0.108***         | 0.110***         |
| Gender             | -0.0125          | -0.0125          | -0.0125          | -0.0125          | -0.0125          | -0.0125          | -0.0125          |
| MarStat            | -0.0276          | -0.0276          | -0.0276          | -0.0276          | -0.0276          | -0.0277          | -0.0276          |
| LnIncome           | 0.672***         | 0.692**          | 0.692**          | 0.688**          | 0.680**          | 0.687**          | 0.692**          |
| Edu                | 0.689***         | 0.687**          | 0.687**          | 0.687**          | 0.687**          | 0.687**          | 0.687**          |
| Health             | -0.00973         | -0.0281          | -0.0324          | -0.0324          | -0.0324          | -0.0324          | -0.0324          |
| Urban              | -0.0824          | -0.0922          | -0.0922          | -0.0924          | -0.0924          | -0.0923          | -0.0923          |
| Constant           | -3.196***        | -3.066***        | -2.953***        | -3.129***        | -3.177***        | -2.971***        | -3.036***        |
| Observations       | 10,019           | 10,019           | 10,019           | 10,019           | 10,019           | 10,019           | 10,019           |
| N pidlinkcode      | 7,948            | 7,948            | 7,948            | 7,948            | 7,948            | 7,948            | 7,948            |

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| Variables          | Model 8 | Model 9 | Model 10 | Model 11 | Model 12 | Model 13 | Model 14 |
|-------------------|---------|---------|----------|----------|----------|----------|----------|
| Trstneighbour     | 0.254** |         |          |          |          |          |          |
|                   | -0.102  |         |          |          |          |          |          |
| Trst police       | -0.0261 |         |          |          |          |          |          |
|                   | -0.1    |         |          |          |          |          |          |
| Trst stranger     | 0.135   |         |          |          |          |          |          |
|                   | -0.123  |         |          |          |          |          |          |
| Leave house       | -0.0542 |         |          |          |          |          |          |
|                   | -0.129  |         |          |          |          |          |          |
| Leave child       | 0.288***|         |          |          |          |          |          |
|                   | -0.103  |         |          |          |          |          |          |
| Alert             | -0.231* |         |          |          |          |          |          |
|                   | -0.133  |         |          |          |          |          |          |
| Lbour uni        | -0.165  |         |          |          |          |          |          |
|                   | -0.159  |         |          |          |          |          |          |
| Help              | 0.222   | 0.315***| -0.103   | 0.337*** |          |          |          |
|                   | -0.517  |         |          |          |          |          |          |
| Arisan            |         |         |          |          |          |          |          |
|                  |         |         |          |          |          |          |          |
| Part rigi evnt    | 0.267***|         | -0.0954  |          |          |          |          |
|                   |         |         |          |          |          |          |          |
| Part soc evnt     |         |         |          |          |          |          |          |
|                   |         |         |          |          |          |          |          |
| Secure            |         |         |          |          |          |          |          |
|                   |         |         |          |          |          |          |          |
| Walk night        |         |         |          |          |          |          |          |
|                   |         |         |          |          |          |          |          |
| Age               | -0.0760***| -0.0773***| -0.0830***| -0.0747***| -0.0778***| -0.0777***| -0.0841***|
|                   | -0.0241 | -0.0239 | -0.0243  | -0.0242  | -0.0241  | -0.0242  | -0.0243  |
| Age2              | 0.000649***| 0.000658***| 0.000707***| 0.000639***| 0.000664***| 0.000660***| 0.000712***|
|                   | -0.000257 | -0.000255 | -0.000259 | -0.000258 | -0.000257 | -0.000258 | -0.000258  |
| Gender            | -0.160* | -0.0532 | -0.157   | -0.142   | -0.170*  | -0.228**  | -0.071   |
|                   | -0.0971 | -0.102  | -0.0971  | -0.101   | -0.0973  | -0.111   |          |
| MarStat           | -0.700**| -0.679**| -0.703** | -0.704** | -0.720** | -0.690**  | -0.704** |
|                   | -0.276  | -0.274  | -0.276   | -0.276   | -0.276   | -0.277   | -0.277   |
| LnIncome          | 0.331***| 0.321***| 0.333*** | 0.331*** | 0.337*** | 0.335***  | 0.337*** |
|                   | -0.0408 | -0.0405 | -0.0408  | -0.0408  | -0.0409  | -0.0409  | -0.0411  |
| Edu               | 0.108***| 0.103***| 0.107*** | 0.109*** | 0.110*** | 0.110***  | 0.105*** |
|                   | -0.0125 | -0.0125 | -0.0125  | -0.0126  | -0.0125  | -0.0125  | -0.0128  |
| Health            | 0.690***| 0.681***| 0.689*** | 0.690*** | 0.671*** | 0.677***  | 0.635*** |
|                   | -0.0774 | -0.0768 | -0.0774  | -0.0774  | -0.0773  | -0.0774  | -0.0768  |
| Urban             | -0.0287 | -0.0387 | -0.00515 | -0.0312  | -0.0202  | -0.0252  | 0.024    |
|                   | -0.0921 | -0.0916 | -0.0926  | -0.0922  | -0.0923  | -0.0922  | -0.093   |
| Constant          | -3.194***| -2.896***| -3.007*** | -2.994***| -3.833***| -3.352***  | -4.092***|
|                   | -0.925  | -0.766  | -0.771   | -0.771   | -0.799   | -0.781   | -0.961   |

Source: STATA Output
| Variable          | -1 FE   | -2 Logit | -3 RE   |
|-------------------|---------|----------|---------|
| Trstneighbour     | 0.119   | 0.233*** | 0.254** |
| Trst police       | 0.258   | -0.0343  | -0.0261 |
| Trst stranger     | 0.211   | 0.122    | 0.135   |
| Leave house       | -0.0838 | -0.0587  | -0.0542 |
| Leave child       | 0.135   | 0.253*** | 0.268***|
| Alert             | -0.165  | -0.194*  | -0.231* |
| Lbourni           | -0.31   | -0.131   | -0.165  |
| Help              | -14.53  | 0.00652  | -0.0111 |
| Arisan            | -0.37   | 0.317*** | 0.337***|
| Part rigi evnt    | 0.541*  | 0.227*** | 0.256***|
| Part soc evnt     | -0.0735 | -0.134   | -0.153  |
| Secure            | -0.0669 | 0.540*** | 0.619***|
| Walk night        | 0.152   | 0.244*   | 0.274*  |
| Age               | 0.0156  | -0.0753**| -0.0841**|
| Age2              | -0.000931| 0.000641***| 0.000712***|
| Genderv           | -0.0635 | -0.000224| -0.000258|
| MarStat           | -0.0594 | -0.624** | -0.704**|
| Lnlncome          | 0.475***| 0.295*** | 0.337***|
| Edu               | 0.0236  | 0.0930***| 0.105***|
| Helath            | 0.522***| 0.577*** | 0.635***|
| Constant          | -3.745***| -4.092***| -4.092***|
| Observations      | 486     | 10,019   | 10,019  |
| Number of pidlinkcode | 243       | 7,948    |         |

Table B: Result of Fixed Effect Logit, Logit dan Random Effect Logit Estimations