



The Happiness Index as a New and Complementary Measurement of Development as Applied to Each Province of Indonesia

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ABSTRACT

Efforts of the governments of various states to raise the level of social welfare by means of developmental mechanisms, one of which is the happiness index (HI) as a new and complementary measurement of the outcomes of development, always experiences policy transformation. Based on the multidimensional scaling method of analysis, at provincial level (of all 33 provinces of Indonesia) 4 grouping of HI, according to economic and non-economic elements. Based on the results of the study, each area needs to use the HI measurement as one of the indicators for quantifying the outcomes of development in the area. The findings also revealed the importance of considering social aspects as determinants of community happiness. Consequently the central and regional governments need to consider the inclusion of HI as one of the accompaniments to the economic indicators especially in the current era of decentralisation.

Keywords: Development Indicators, Happiness Index, Economic and Non-economic

JEL Classifications: O24, I3

1. INTRODUCTION

One of the issues which is always covered in the melting pot of global development is how to formulate the best method of raising the level of the welfare of the people (Hirschauer et al., 2015) This formulation is done by means of policy making which in the process always experiences transformational change. This transformation can at least be classified into 4 stages which are:

1. The first is the view which says that efforts to raise the level of welfare of the people through development can only be done by raising the level of growth. Growth in the economy constitutes an absolute condition for achieving boundless goals such as extending the opportunities for work, productivity and preparing the economy to advance further (Budimanta, 2012). This view always engenders policies designed to raise economic activity through investment,

infrastructure and financial advantages which support higher economic growth (Brautigam, 1995).

2. The second is the modern view which can be interpreted as a policy of human development and which criticises the growth theory. The theory of human development criticises the growth theory because it is evident that the high level of income it espouses turns out to be enjoyed by a small few. Many case studies have revealed that all of the real gross domestic product (GDP) is not shared by the vast majority of the people (Kartasmita, 1996; Zubaedi, 2007). The paradigm of human development has four essential components (Arnado, 2006), Namely: (i) Equality referring to similarity in obtaining economic and political rights; (ii) productivity still becomes an important factor via systematic endeavour directed at increasing economic activity; (iii) the importance of the aspect of empowerment which refers to every effort to develop the capacity of the people through transforming potential and

abilities, and so (iv) the importance of the aspect of continuity which refers to strategies in the management of development capital in the physical financial and environmental spheres in realising the welfare of the people.

3. The third is a model of development which is all-encompassing in so far as it endeavours accommodate growth in well-being from other more comprehensive dimensions. which can become solutions in the ending of broad and complex developmental problems. This has prompted the United Nations (UN) to promulgate a program of initiative aimed to achieve various aspects of development, both economic and social known as the millennium development goals (MDG's). These MDG's encompass eight large components seven of which are directed to developing countries. They are: (i) Reducing by half the number of people suffering from poverty and malnutrition; (ii) providing the needs of adequate education at the elementary level; (iii) eliminating gender inequality; (iv) reducing by two-thirds the number of deaths of infants under five; (v) reducing by three-quarters the ratio of women dying from childbirth; (vi) stopping the spread of HIV/AIDS and other infectious diseases; (vii) halting destruction of the environment and promoting sustainable development.
4. The fourth is a complement to the MDG indicators in so far as it takes the importance of social aspects and life satisfaction into account when measuring well-being. Several dimensions which comprise life satisfaction are mentioned in the happiness index (HI). Life satisfaction in economic theory is understood as a utility or something that can satisfy a human need. In this theory, life satisfaction or happiness is identified with the satisfaction of people (including consumers). According to Frey and Stutzer (2008), the calculation of the HI is based on the assessment of the satisfaction of the people in regard to 10 aspects of life, namely: (i) Household income; (ii) the condition of the home and assets; (iii) employment; (iv) education; (v) health; (vi) availability of leisure time; (vii) social contacts; (viii) family harmony; (ix) security conditions; and (x) the surrounding environment.

These four levels of development above lay out the importance of measuring well-being which must accommodate social aspects (not just economic aspects). The effects of income, unemployment and economic, social and genetic factors are identified in measuring the level of well-being. In this context also, there is an indication also that well-being isn't only material in nature, but also immaterial. Well-being clearly does not just consist in economic aspects but also in various other ends such as fidelity, responsibility, self-worth, freedom and personality development (Peiro, 2006) Some theories suggest that HI provides an innovative space on empirical theory and analysis of individual well-being (e.g. research from Verme, 2009 and Levy, 2008). The HI also drives change and progress in economic theory considerably into the future (Frey, 2011).

In view of its advantages and contributions, Indonesia has also adopted HI as an indicator of development. However, the adoption which has been effected is still at a national level. It needs to be adopted by smaller regions and areas in this era

of autonomy and decentralisation. This situation brings out the importance of a development budget being allocated to any region which has paid attention to and allocated what is proportional for a policy and direct programs for evening out well-being and quality of life for the people there. For this reason, it is extremely important that the HI which complements/accompanies development indicators in Indonesia be promoted. Consequently, from this, the main aim of this study is to find ways to include the HI as a complement and accompaniment to development indicators in Indonesia. This will be interpreted by efforts to analyse and outline the HI at the level of all 33 provinces of Indonesia.

2. MODEL OF ANALYSIS

This study will explore how the HI has materialised in Indonesia. Then from this the extremely important lesson is to analyse and draw up an overview of the HI at the provincial level of all 33 provinces of Indonesia. This overview will be constructed in provincial groupings of provinces based on the HI from these factors and it is hoped to find a typology of similar factors of provinces. From these factors it is hoped to discover the major dominant factors/dimensions forming the HI at the level of each province (Figure 1).

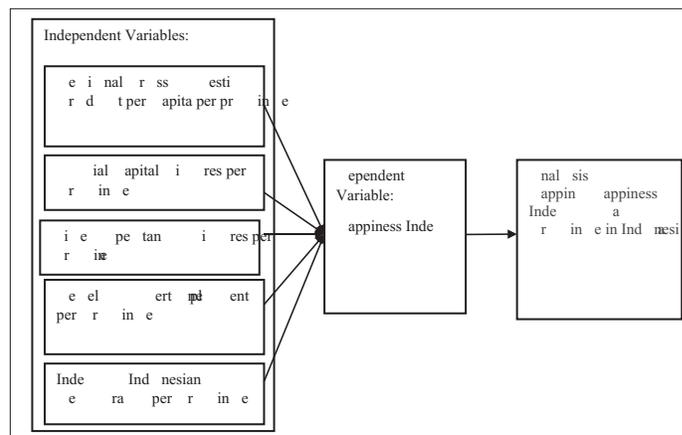
There are variables used in this study including independent variables and a dependent variable. Independent variables include: (1) PDRB regional GDP per capita per province; (ii) social capital ratings per province; (iii) life expectancy per province; (iv) overt level of Unemployment per province; V index of Indonesian democracy per province.

At the same time the dependent variable in the study is the HI. Clarification of the relationship between independent and dependent variables is as follows:

2.1. PDRB per Capita per Province

Theoretically, the regional GDP per capita has an influence on the HI. This is because it reflects the level of income of the population. It is surmised that the higher the GDP per capita, the higher the level of happiness for the people and vice versa.

Figure 1: Framework of analysis



Resource: Writer ilustrasion result

2.2. Social Capital per Province

Theoretically the social capital within the community has an influence on HI. It is presumed that the higher the social capital, the happier the people and vice versa.

2.3. Life Expectancy per Province

In theory the life expectancy has an influence on the HI. It is presumed that the higher the life expectancy, the happier the people and vice versa.

2.4. The Overt Level of Unemployment per Province

In theory the overt level of unemployment among the people has an influence on HI. It is presumed that the higher the level of unemployment, the lower the level of happiness of the people and vice versa.

2.5. Indonesian Democracy per Province

In theory, the Index of Indonesian Democracy has an influence on the HI. It is presumed that the higher the level of Indonesian Democracy the happier the people.

3. METHODOLOGY

3.1. Research Approach

Using replies describing issues and aims of the research which had already been determined, quantitative research is being used in this study. The quantitative approach is being used because the study wants to test the influence of a number of variables on the HI. There are several reasons the quantitative approach was chosen for the study, namely:

1. The researchers want to see the influence of variables on the objects being researched to the extent that there are independent variables in the research which have an influence on the dependent variable. From these variables we will look for just how much these influence the dependent variable. The extent of the influence will significantly determine the characteristics of the findings which can be strengthened by former research. Then from that the quantitative assessment which is used in the study extreme accuracy and care will be needed in the consideration of the data there-in.
2. The research is adopt from many of kinds examination had done by researcher, or many of institute was measuring of HI, as same as in international level is UN, while from national level is The central body of statistics (BPS) Thoughtful, many of individual research has used quantitative, as UN or BPS organization.

3.2. Sources of Data

Data in this study is only of one kind, that is secondary data. This data has been gathered from various sources including:

1. Dependent variables, that is data comprising the HI is the result of a survey already done by BPS (the central body of statistics) in 2014 in relation to all the provinces of Indonesia. According to BPS the HI consists of the average of the index for each individual person in 2014. The higher the index figure indicates the higher the level of life satisfaction, and conversely, the lower the figure the lower the level of life satisfaction. The HI consists of a composite index which is

totalled from 10 index levels of satisfaction with 10 essential aspects of life which together substantially reflect the level of happiness which includes satisfaction with: (i) Health or H1; (ii) education or H2; (iii) employment or H3; (iv) household income or H4; (v) environmental surroundings or H5; (vi) security or H6; (vii) family life or H7; (viii) the availability of leisure time or H8; (ix) social life or H9; (x) home and assets or H10.

2. Independent variables consist of 5 indicators, namely: The figure for the regional GDP per capita from the survey which was done by BPS as a time series according to the provinces of Indonesia; (ii) the figure for Social Capital is secondary data originating from the National economic social survey conducted by bps as a time series by province; (iii) the figure for life expectancy which consists of secondary data used to calculate the index of human development by province as a time series; (iv) the figure for the level of overt unemployment by province which consists of the results of the National Survey of the take-up of Work collected by BPS as a time series, and (v) the figure for the Index of Indonesian Democracy by province which was conducted by BPS the national development planning agency (Bappenas), the Ministry of internal affairs and the coordinating ministry for politics, law and security.

3.3. Analytical Method

Based on the research goals the analytical method, then, to be used in the research is multi-dimensional scaling (MDS). MDS consists of certain statistical techniques which measure objects in multi-dimensional spaces respondent evaluations similar to those objects (Prमितasari, 2011) MDS is a multivariate technique within the grouping of interdependent techniques with the positioning of each variable the same without distinguishing between variable and invariable. MDS is one of the procedures which is used to map perceptions of respondents visually in a geometric diagram or map. This geometric map is called a perceptual map and it indicates objects on the map according to whether they are similar or dissimilar.

MDS analysis is one of the multivariable techniques to determine an object's position compared to another based on similarity of value. MDS is also called a perceptual Map. MDS communicates with the map-maker to illustrate the position of an object in relation to another object based on their similarity. MDS also constitutes a technique which can help researchers to identify key dimensions basing evaluations on objects from respondents. MDS analysis is one of the multivariable techniques that can be used to determine the position of another object based on the similarity of its assessment. MDS is also called a Perceptual Map. MDS deals with the creation of a map to describe the position of an object in relation to another object based on the similarity of the objects. MDS is also a technique that can help researchers to identify the key dimensions underlying object evaluation of respondents.

The concept and scope of MDS consisting of various applications; which describes the steps that must be passed in the MDS of perceptual data, covering: (i) The formulation of the problem; (ii) obtaining input data; (iii) selecting MDS procedures;

(iv) deciding on the number of dimensions; (v) providing interpretation to configure and provide assessment (to assess) reliability and validity; (v) describing the scaling of preference data; (vi) describing correspondence analysis and its merits and weaknesses; (vii) understanding the relationship within MDS; (viii) analysis discrimination; and (ix) factor analysis. In addition, MDS may determine: (i) What dimensions respondents use when evaluating objects; (ii) what dimensions will be used for the matter being studied; (iii) the relative importance of each dimension; and (iv) how objects are attributed or connected perceptually.

The MDS analysis used in this study is used to formulate the problem and give the primary objective of the research, which is to map the HI at a provincial level for the 33 provinces of Indonesia.

4. STATISTICAL FINDINGS

The MDS method of analysis is intended to classify provinces based on their similarity or the proximity of the provinces in accordance with the variables studied in the form of multidimensional space (configuration Map). The use of MDS is done through analytical prerequisites that include good measurement fit and lack of measurement fit. Good measurement fit is used to find out how well MDS can explain the diversity of the data. Good fit in MDS is known through the coefficient of determination (R2). Based on the analysis results obtained R2 value of 0.957 (95.7%). This states that MDS procedure is able to explain the data diversity of 95.7%, so it can be concluded that MDS has performed excellent scaling procedures. On the other hand, Lack of Measurement Fit is used to find out how big the mismatch between data is in the MDS measurement. Lack of fit in MDS is known through the value of STRESS. The STRESS value criteria can be found in the Table 1.

Based on the analysis, STRESS value is 0.133 (13.3%). This shows the magnitude of incompatibility between data with MDS measurement of 4.8% and is in the range 10–20%. Thus, the measurement of MDS is considered satisfactory in using scaling data to know the similarity of provinces based on the parameters.

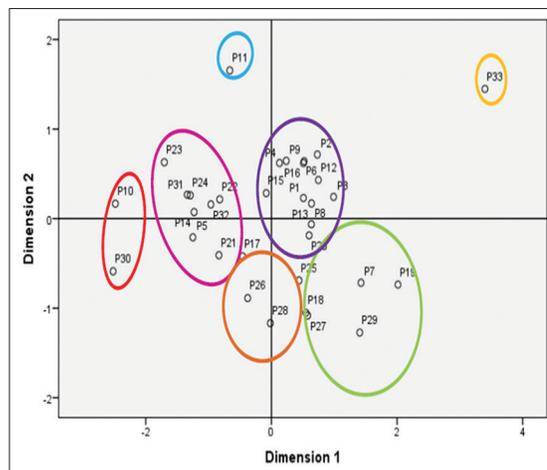
After that the form of the configuration Map can be known, which is used to know the position of similarity or proximity of a province based on the variables studied. The configuration Map is based on the previously described components of happiness: (i) Health or H1; (ii) education or H2; (iii) work or H3; (iv) household income or H4; (v) environmental surroundings or H5; (vi) safety or H6; (vii) family life or H7; (viii) the availability of leisure time or H8; (ix) social life or H9; (x) home and assets or H10. Based on the configuration Map, the similarities or closeness of each province in Indonesia are as follows in Figure 2.

Table 1: Classify of measurement

| Stress | Conformity |
|--------|--------------|
| 0–2.5% | Perfect |
| 2.5–5% | Very good |
| 5–10% | Good |
| 10–20% | Satisfactory |
| >20% | Poor |

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Figure 2: Configuration Map 33 provinces of Indonesia



Resource: Writer ilustrasion result

Key:

| | | | | | |
|-----|-------------------------|-----|--------------------|-----|---------------------|
| P1 | Aceh | P12 | West Java | P23 | East Kalimantan |
| P2 | North Sumatra | P13 | Central Java | P24 | North Sulawesi |
| P3 | West Sumatra | P14 | Yogyakarta | P25 | Central Sulawesi |
| P4 | Riau | P15 | East Java | P26 | South Sulawesi |
| P5 | Jambi | P16 | Banten | P27 | South East Sulawesi |
| P6 | South Sumatra | P17 | Bali | P28 | Gorontalo |
| P7 | Bengkulu | P18 | West Nusa Tenggara | P29 | West Sulawesi |
| P8 | Lampung | P19 | East Nusa Tenggara | P30 | Maluku |
| P9 | Bangka Belitung Islands | P20 | West Kalimantan | P31 | North Maluku |
| P10 | Riau Islands | P21 | Central Kalimantan | P32 | West Papua |
| P11 | Jakarta | P22 | South Kalimantan | P33 | Papua |

- (Maluku). The provinces of the Riau Islands and Maluku have similarity or proximity, so that they are in a group with characteristics in which the two provinces have health (H1), education (H2), occupation (H3), income (H4), environment (H5), security (H6), family life (H7), leisure time availability (H8), and housing and assets. The first position is filled by 2 provinces, namely P10 (Riau Islands) and P30 (H10) which are high, and relationship life (H9) medium category.
- The second position is filled by 8 provinces, namely P5 (Jambi), P14 (Yogyakarta), P17 (Bali), P25 (Central Kalimantan), P23 (East Kalimantan), P24 (North Sulawesi), P31 (North Maluku), and P32 (West Papua). These eight provinces have similarity or proximity, so that they are in a group with characteristics in which the province has very highly rated education (H2) and income (H4), and health (H1), occupation (H3), environment (H5), security (H6), family life

- (H7), leisure time (H8), relationship life (H9), and housing and assets (H10) fall into the medium category.
3. The third position is filled by 5 provinces, namely P18 (West Nusa Tenggara), P25 (Central Sulawesi), P26 (South Sulawesi), P27 (Southeast Sulawesi), and P28 (Gorontalo). The five have a similarity or proximity of distance, so that it is in a group with characteristics where the five provinces have a relatively low (H5) environment, while security (H6), family life (H7), and leisure time (H8) category H1, education (H2), occupation (H3), income (H4), relationship life (H9), and housing and assets (H10) fall into the medium category.
 4. The fourth position is only filled by 1 province, namely P11 (Jakarta). It is known that the Jakarta Province has characteristics that have family life (H7), life relationship (H9), and housing and assets (H10) in the low category, while work (H3) and income (H4) belong to very high category. Then health (H1), education (H2), environment (H5), security (H6), and leisure time (H8) in the medium category.
 5. The fifth position is filled by 3 provinces, namely P7 (Bengkulu), P19 (East Nusa Tenggara), and P29 (West Sulawesi). These three provinces have similarity or proximity, so that they are in a group with characteristics where the three provinces have security (H6), family life (H7), leisure time (H8), relationship life (H9), and housing and assets H10, health (H1), education (H2), occupation (H3), income (H4), and environment (H5) fall into the medium category.
 6. The sixth position is filled by 11 provinces, namely PP1 (Aceh), P2 (North Sumatra), P3 (West Sumatra), P4 (Riau), P6 (South Sumatra), P8 (Lampung), P9 (Bangka Belitung Islands) P12 (West Java), P15 (East Java), P16 (Banten), and P20 (West Kalimantan). These 11 provinces have similarities or proximity, so that they are in a group with characteristics in which the province has health (H1) which is low, and education (H2), occupation (H3), income (H4), environment (H5), security (H6), family life (H7), leisure time (H8), relationship life (H9), and housing and assets (H10) fall into the medium category.
 7. The seventh position is only filled by one province, namely P33 (Papua Province) which has the characteristics of having health (H1), education (H2), occupation (H3), income (H4), environment (H5), security (H6), family life (H7), leisure time (H8), relationship life (H9), and housing and assets (H10) fall into the low category.

5. DISCUSSION

The discussion of MDS leads to the analysis of each group based on the results of the grouping of 10 HI-forming variables divided into 7 groups. The 10 variables forming HI have been grouped into 2, that is a group of economic variables and a second group of non-economic variables. (1) The first grouping includes the economic variables. There are 3, namely: (i) Revenue (H3); (ii) employment (H4); and (iii) home ownership and assets (H10). (2) The second grouping includes non-economic variables. There are 7, namely: (i) Health (H1); (ii) education (H2); (iii) environment (H5); (iv) security (H6); (v) family (H7); (vi) leisure time (H8); and (vii) relations (H9). Based on the groupings of the two merging above, there are 4 new groups as in Table 2.

The four aggregate groups above make it easier to see all the provinces combined in Indonesia. Based on the merged groups, the HI in Indonesia comprises only 4 categories, namely: (i) Very high; (ii) high; (iii) medium; and (iv) low. The majority of groups are in the high category with a HI score of 65–70, where the economic element is very high, and the non-economic element is very high. While in the low category where the economic element is low and the non-economic element is low there is the province of Papua. While the remaining groups very high and medium. Some of these groups can be explained with the following specifications:

1. In the very high category, in both economic and non-economic elements, are the Riau Islands and Maluku with a HI of >70.
 - a. When the Riau Islands province is viewed, Its very high value characteristics are education (H2), employment (H3), environmental surroundings (H5), security (H6), and availability of leisure time (H8) - higher than Maluku province. Some of these variables are indeed very relevant, considering the Riau Islands is a province with a character of social environment, natural environment, and a conducive economy.
 - b. When the province of Maluku is viewed, the characteristics are health (H1), income (H4), family life (H7), life relationship (H9), and housing and assets (H10) - higher than the Riau Islands province. When viewed, some variables in Maluku Province are seen more from the aspects successful development of human development, namely education, health, and social life.
2. In the High Category, where economic and non-economic elements are High, are all the provinces in Java, Sumatra, Kalimantan, and Sulawesi (except for West Sulawesi), with the HI scores between 65 and 70.
 - a. When all the provinces in Java are viewed, there are some variables that are rated low, medium, and high, with considerable variation. This indicates that not all HI-forming variables in Java are good, but they are also offset by deficiencies in certain variables. In essence, almost all HI-forming variables have an almost uniform value. Such a model indicates that the pattern of development on the island of Java is in balance, and experiences positive conditions and negative ones.
 - b. When viewed from all provinces located on the island of Sumatra, then each province by value variables do not vary much from all the provinces in Java, the average value of which is high. That is, the diversity of these values proves that each province on the island of Sumatra as a whole has a mixed dynamic of development, on the one hand also interspersed with low values such as environmental destruction and social impacts from less inclusive development conditions.
 - c. When all provinces in Kalimantan are viewed, the ratings are almost the same as in almost all the provinces of Java and Sumatra, the average of the provinces in Kalimantan make that region the third largest contributor of GDP of the total national GDP. The high economy rating in Kalimantan has caused some provinces to have low and medium HI values. This medium classification indicates that on average in Kalimantan the positive and negative impacts of the economy balance out. Some of the major

Table 2: Provincial groups by HI based on MDS results

| Analysis group | MDS group | HI score | Category | Explanation | Province |
|----------------|------------|----------|-----------|----------------------------------------|-----------------------------------------------------------------------|
| I | 3 | >70 | Very high | Economy - V. high non economy- V. high | Riau Islands Maluku |
| II | 1, 5, 6, 7 | 65–70 | High | Economy - high non economy - V. high | All Java provinces Sumatra Kalimantan Sulawesi (Except West Sulawesi) |
| III | 4 | 59–64 | Medium | Economy - medium non economy - V. High | East Nusa Tenggara Bengkulu West Sulawesi |
| IV | 2 | <59 | Low | Economy - low non economy - low | Papua |

Resource: Data from MDS result dependent economic and non economic. HI: Happiness index, MDS: Multi-dimensional scaling

problems in Kalimantan are environmental problems such as natural resource degradation, and inequality factors due to a non-inclusive economy. The gap in Kalimantan is highly counterproductive with abundant natural resource potential which negated by environmental destruction.

- d. When all provinces in Sulawesi (except West Sulawesi) are viewed, the average province in Sulawesi is quite rapid (besides North Sulawesi), but there are still problems such as inequality, lack of equity, and poverty. The most striking problem is inequality, so the average level of community income on the island of Sulawesi is considered less satisfactory.
3. Medium ratings of economic elements and Very High of non-economic elements in East Nusa Tenggara, Bengkulu and West Sulawesi give these provinces HI scores between 59 and 64.
 - a. The first is the province of Bengkulu, where economic growth is still not conducive. The actual condition of the economy is less conducive but the balancing effect of the reduction in unemployment and poverty is judged to be the cause of the current values in some HI-forming variables in Bengkulu such as health, education, employment, income, and environment.
 - b. The second is the province of East Nusa Tenggara, where the average of ratings of work, environment, security, family life, leisure time availability, relationships, and housing and assets are lower than Bengkulu and West Sulawesi provinces. However, the level of poverty is quite high. Poverty in East Nusa Tenggara is influenced by less productive attitudes and lifestyles, low levels of education and health, in addition to limited employment and limited support for social and economic institutional systems. Some of these traits or characteristics are thought to affect the low variability of several HI variables in East Nusa Tenggara Province, such as environmental variables of security, family life, leisure time availability, relationship life, and housing and assets.
 - c. Third is the province of West Sulawesi, which when compared with other provinces or regions that have a Very High HI and High, is still far behind. In the aspect of education, basically the overall level of education in West Sulawesi has not developed optimally but is quite good when viewed from the development trends. While in the aspect of health, the status of the people of West Sulawesi has not shown good results when health indicators such as maternal mortality, the mortality rate of infants under five, and malnutrition which are above the national level, are viewed. This situation is expected to affect other variables such as environment, family life,

leisure time availability, life relationships, and housing and assets which determine the HI in West Sulawesi.

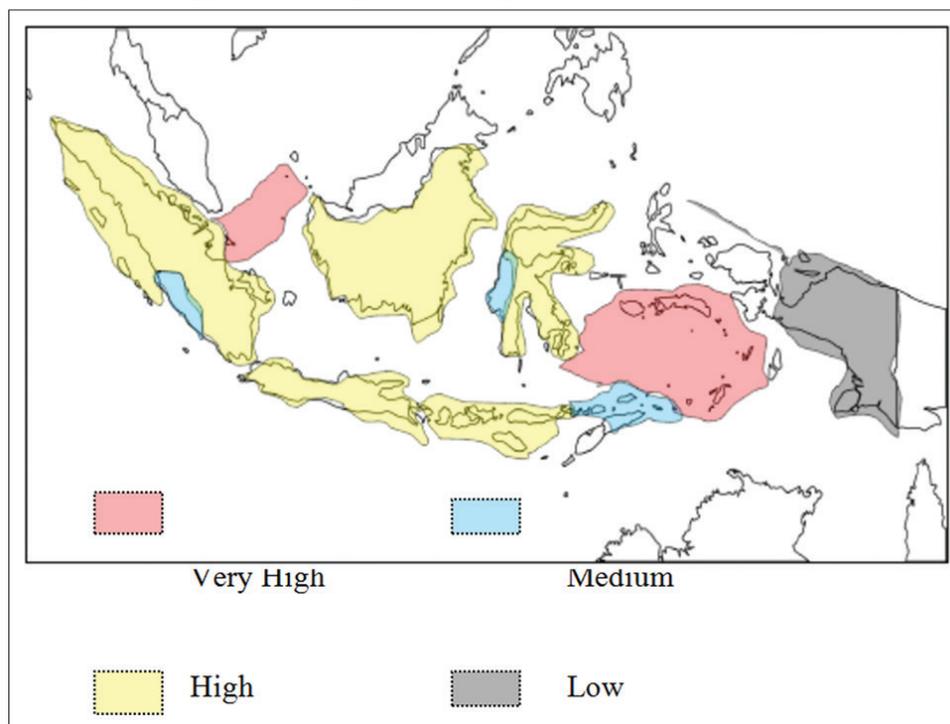
4. In the low category of both economic and non-economic elements are Papua provinces with HI score of <59. The Low rating of all the variables cannot be separated from the potential wealth of Papua Provinces but which has not been optimized.

Of the four statements above, it can be illustrated through a more representative map as follows:

From the results incorporated in the above map, it can be found that strengthening non-economic aspects, such as social conditions and security has more influence in improving the HI in Indonesia. This result is supported by some previous studies, such as that done by Hu (2012) which examined the HI in China, and found the HI in China was more influenced by socio-cultural factors as a macro condition. Another researcher, Levy (2008), found that social reinforcement is a factor that greatly determines the level of one's happiness. This is in line with Lubian and Zarri (2011) who say that the happiness of a person is not solely dependent on the level of income, but rather the power of social capital in society. It can be awakened by growing collective consciousness and the need to build cohesiveness in society by being characterized by a passion for improvement. This improvement is brought about by active participation in supporting various activities undertaken to improve the community's welfare.

In addition to social aspects, another dimension of non-economic determinants of happiness in Indonesia is the aspect of health. The results of this study support the results of the research of Gropper et al. (2011), that happiness is dependent on the values of life used. The value of life is a thought pattern that is included in the category of thinking about health. Even according to the research of Wei et al. (2015), that the majority of happiness in China is influenced by individual psychological aspects, it is very relative because each individual has different demands for the satisfaction of his life. Some of the life satisfaction associated with this level of health is closely related to government budget allocation, especially in health and education.

In addition to social and health aspects, another non-economic dimension is the aspect of freedom, which is represented through security variables. If the pressure in an individual's life is high, then it can be interpreted that the level of security that surrounds the individual is very low. A pressure in the choice of life is defined as a democratic milieu that determines the level of one's happiness (Frey and Stutzer, 2010). Other studies also suggest that well-being

Figures 3: Happiness index of provincial groups based on multi-dimensional scaling results

Resource: Writer ilustrasion result

through happiness is easily achieved when there are many choices in life, including freedom in politics (Groper et al., 2011). Another study states that as freedom in life develops, it has a great influence on one's happiness. According to Inglehart and Welzel (2009) one's happiness is more determined by the freedom to make important decisions and the freedom to determine individual preferences.

Based on the above explanation, it is necessary to strengthen non-economic factors to achieve higher levels of community happiness. Other studies have found that judgments that become the point of reference in the concept of well-being or happiness are certain aspects of the life situation of people in society. The study also found the values used are not necessarily resource-oriented. Absolute income is not a determinant of happiness, there are findings saying that happiness is determined by relative income, income comparison and income aspiration, and even non-economic factors play an important role in human well-being (Clark et al., 2008).

6. CONCLUSIONS AND CONTRIBUTION OF RESEARCH

Based on the analysis of the discussion, this research concludes that MDS configuration of the HI at the provincial level for the 33 provinces of Indonesia produces 4 groups according to economic and non-economic elements, namely: (i) The group very high in both economic and non-economic elements, which includes the Riau Islands and Maluku with a HI of >70 . (ii) a group high in elements of economy and very high in non-economic elements which includes all provinces in Java, Sumatera, Kalimantan, and Sulawesi (except for West Sulawesi), with HI scores between 65 and 70 (iii) a group Medium in categories of elements of the

economy and very high in non-economic elements which include East Nusa Tenggara, Bengkulu and West Sulawesi with HI scores between 59 and 64); and (iv) a group low in both the categories of economic and non-economic elements which includes Papua provinces with HI scores of <59 . This mapping yields the important finding that the HI in Indonesia is more influenced by non-economic aspects and can be improved by strengthening aspects such as social conditions and security.

Based on the results of the research, every region needs to use the HI as one of the indicators of measurement of success of regional development. The HI is a relevant measure to see the success of development that has been proven as an important measure of community welfare as distinct from the income level indicator that has been the main indicator of welfare. However, the HI is an accompanying indicator of more realistic development successes in depicting development outcomes. Some non-economic variables contribute greatly to the happiness in Indonesia, therefore central and local governments need to consider incorporating this indicator as one of the guiding economic indicators in depicting the measure of the success of national, provincial and district/city level development especially in this era of fiscal decentralization and regional autonomy, so that the results of development can be seen more comprehensively.

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