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Determinants of Happiness Index: A Reference for Implementing CSR Programs in Indonesia

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***Abstract*— In a global context, The Corporate Social Responsibility (CSR) program is a commitment from the business world to improve the quality of life of the community, which means contributing to realizing community welfare. This research aims to analyze the extent to which variables related to aspects of human development aspects influence realizing the happiness of Indonesian society, which is represented by the happiness index number. This study will also determine to know whether there are differences in happiness in six groups of provinces in Indonesia. Analysis using panel data regression, data sourced from the Central Bureau of Statistics for 2014, 2017 and 2021. The determinants of the happiness index are important to analyze because an individual's level of well-being is not only measured by material prosperity (well-being) but subjective well-being or happiness. From the research results, the level of health and gross regional domestic income (GDP) per capita has a significant and positive influence. Education has no significant influence on the happiness index. By using analysis of variance it was found that there are differences in the Happiness Index in the six provincial groups observed.**

***Index Terms*— happiness index, human development, panel data.**

I. INTRODUCTION

Law no. 40 of 2007 article 1 paragraph 3 concerning Limited Liability Companies is the basis for the Corporate Social Responsibility (CSR) program in Indonesia. The contents of the Law state that the Company has a commitment and responsibility towards the environment and society in order to contribute to improving the quality of life and the environment, to realize sustainable economic development. All of this is beneficial for the local community, the company and society at large. Optimizing the role of CSR funds to finance development in an appropriate, integrated, and sustainable manner can be done in several ways, including planning the direction of development financing by using CSR funds based on mapping and clustering carried out according to plans and work programs that have a positive impact on society and especially for own business world.
Government cooperation with the private sector in development financing programs using CSR funds must be carried out based on mutual trust and apply the principles of (GCG), transparency, and accountability so that the cooperation process can be continuous and that all jointly planned development work programs can be carried out in a sustainable manner (sustainable cooperation) (Lata & Mittal, 2023). and have a positive impact.CSR in several places, especially in developed countries, has become a profitable and risk-free solution as an alternative

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source of development financing compared to other alternative sources of financing. So if the government can mobilize and coordinate well and responsibly the company's potential CSR funds, this means it will also increase the role of the private sector in development, including regional development (Rangan et al., 2015)

Referring to the foundation of this commitment, CSR activities are based on 3 operational principles, namely economy, society, and environment. Thus, CSR is relevant to all efforts made to meet the needs of the present which should not be at the expense of meeting the needs of future generations. So the total amount of social, economic, environmental, cultural, political, and personal capital transferred from one generation to the next is at least the same, not reduced. Following the principles of sustainability. CSR has a very important role and potential, both for society and especially for the companies themselves, including the government, especially where CSR is implemented.

In several developed countries, to formulate public policies aimed at achieving their national goals, the well-being indicator utilized is the happiness index. A good understanding of the objective benefits of efforts to increase population happiness will help place the topic of discussion on happiness as an important part of the framework of public policy formulation efforts to perfect evaluation criteria for various national development policies.

Happiness levels are influenced by various factors, including health, income, and education level. Research by Ribeiro (2017) shows that income is not the main factor in happiness in Brazil. Happiness studies in Indonesia still have research potential. Many previous studies emphasize the importance of material (income) factors for welfare in Indonesia. Income plays an important role in welfare in developing countries. When basic needs are met and wealth increases, differences in individual welfare or happiness are greatly influenced by non-material factors such as social relations. This is in accordance with Maslow's hierarchy of needs theory that human needs are tiered. Basic needs are the first and most basic needs to be met. These are physical needs, which require economic resources. Individuals will attempt to satisfy higher level needs only after their basic needs have been met. (Cao et al., 2013; Lata & Kumar, 2022).

The increase in the happiness index in Indonesia is fluctuating. Of 156 countries in the world, Indonesia is ranked 84th. Based on the 2023 World Happiness Report, Indonesia is in the 6th position among countries in Southeast Asia or the fourth (4th) lowest position. Based on the World Happiness Report 2023. The level of happiness of the Indonesian people is ranked sixth out of the nine countries studied. Indonesian people's life satisfaction is only higher than in Laos, Cambodia and Myanmar. Published data shows that almost all countries measure the happiness of their people, which means that looking at the happiness index is important, because everyone wants to be happy. This proves that the old development perspective which focuses on physical development, has shifted towards the human paradigm as the main key to development (Ari et al., 2021). Indonesia's level of happiness is still low and fluctuating, which is the basic reason why the level of happiness of Indonesian people must continue to receive attention, including through various research.

Community happiness, in this case community welfare, is identical to increasing the development of human aspects. The developed humanitarian aspect shows an increase in human resources. Human resource development plays a very important role apart from capital (money), natural resources and technology. In the UNDP (United Nations Development Program) perspective, human development is formulated as expanding the choices of the population (enlarging the choices of people) as well as the level achieved from these efforts. Human development can also be seen as the development (formation) of human capabilities through improving the level of health, knowledge and skills of the population. Human development indicators are represented by the Human Development Index (HDI).

The Human Development Index (HDI) explains how the population can access development results in obtaining income, health, and education (BPS, 2023). There are three composite indicators to measure the average achievement of human development, namely: (1) length of life, which is measured by life expectancy, (2) education which is measured based on the average number of years of schooling and the literacy rate of the population aged 15 years and over, and (3) decent standard of living.

On the other hand, Indonesia is faced with a vast territorial situation, which is in 15th place among all countries in the world, having more than 17,000 large and small islands. If we rank the six (6) large islands in Indonesia, namely Papua, Kalimantan, Sumatra, Sulawesi, Java and Bali. Indonesia has 34 provinces spread throughout the Indonesian archipelago which have a very high diversity of cultures and traditions. The Central Statistics Agency has measured the happiness index in 34 provinces in 2021 with the following results:

TABLE 1. THE HAPPINESS INDEX IN 34 PROVINCES IN 2021

Provinsi	Indeks Kebahagiaan	Provinsi	Indeks Kebahagiaan
Aceh	71,24	West Kalimantan	72,49
Lampung	71,64	Central Kalimantan	73,13
Bengkulu	69,74	East Kalimantan	73,49
Riau	71,8	South Kalimantan	73,48
Riau Island	74,78	North Kalimantan	76,33
South Sumatera	72,37	West Nusa Tenggara	69,98
West Sumatera	71,34	East Nusa Tenggara	70,31
North Sumatera	70,57	Gorontalo	74,77
West Jawa	70,23	Southeast Sulawesi	73,98
Jambi	75,17	South Sulawesi	73,07
Bangka Belitung Island	73,25	Central Sulawesi	74,46
Jakarta Capital Special Region	70,68	North Sulawesi	74,96
Maluku	76,28	Special Region of Yogyakarta	71,7
Central Jawa	71,73	West Sulawesi	73,46
East Jawa	72,08	North Maluku	76,34
Bali	71,44	West Papua	74,52
Papua	69,87	Banten	68,08
		Indonesia	71,49

The diversity in the level of happiness of Indonesian people in 34 provinces (which at the time this study was written had increased to 38 provinces) which have a diversity of various aspects of life, is an important thing to know, whether there are differences in the average happiness of people in the observed groups of provinces.

Based on the previous description, this study aims to analyze the determining factors of happiness in Indonesia based on the three (3) dimensions that make up the human development index, namely education, health and gross domestic income per capita. Apart from that, a happiness difference test was carried out in six (6) groups of provinces in Indonesia, to find out whether there were significant differences in happiness levels.

Considering that CSR programs are aimed at improving community welfare, various factors that influence efforts to create community welfare need to receive attention from various parties, including the business sector through CSR programs. It is hoped that the results of this research will provide benefits for the development of happiness index studies in Indonesia as well as the formulation of development policies. Thus, the policy formulated by the government is the right policy and leads to the ultimate goal, namely increasing people's happiness.

It is also hoped that the results of this research will provide benefits in developing research on happiness levels in Indonesia as well as establishing policies by the government to increase the index of happiness and well-being of Indonesian society.

What differentiates this research from previous research on the determinants of the happiness index in Indonesia is that the education level indicator uses the literacy rate of the population aged 15 years and over in Indonesia. This is an important indicator in measuring the level of literacy and education in a country. Meanwhile, the author has not found research on differences in levels of happiness between provincial groups so far

II. LITERATURE REVIEW AND DEVELOPMENT HYPOTHESIS

A. Health and Happiness Index

The health variable in this study uses life expectancy. Life expectancy in Indonesia in 2014 was 70.59, in 2017 it increased to 71.06 years and in 2021 life expectancy will again increase to 71.57 years. Previous research was conducted by who stated that life expectancy has a positive and insignificant effect on happiness. This research is in contrast to research conducted by Novi (2016) which states that if high life expectancy (UHH) is not accompanied by adequate skills, it can cause problems in life so that the level of happiness can decrease. UHH is a tool for evaluating government performance in improving the welfare of society in general. The high per capita income and life expectancy of the population in some ASEAN countries are not always accompanied by a high level of happiness among their residents. The Philippines, Vietnam and Cambodia are countries with relatively low per capita income and life expectancy but actually have a relatively high happiness index compared to other ASEAN countries. The healthier the individual's condition, the level of happiness will also increase. (Ansar et al., 2022).

Hypothesis 1: Health has a positive effect on the happiness index

B. Education and Happiness Index

Human development which is measured in index numbers provides a measure of the extent to which society can develop because it can benefit from health and education services with an increase in income (Chen, 2012). At the level of happiness there is a direct and indirect influence from education. Indirect effects of education on happiness through income and employment status. After controlling for income, labor status, and other socio-economic variables, the results show that education has a positive and direct impact on happiness levels (Kumar and Lata, 2022). HDI is structured by three basic dimensions, namely health, education and decent living standards. The three dimensions of HDI are contained in 10 domains of the happiness index, namely health, education, and condition of home and assets. So an increase in HDI will affect the happiness index and increase. Likewise with the length of education, the higher a person's education, the higher their level of happiness. Likewise with the length of education, the higher a person's education, the higher their level of happiness (Purwanti, 2022).

To measure the average achievement of human development, three composite indicators are needed namely: (1) education which is measured based on the average number of years of schooling and the literacy rate of the population aged 15 years and over, school participation number, (2) standard of living which is measured using per capita expenditure which has been adjusted to purchasing power parity and (3) length of life, which is measured by life expectancy at birth,.

There are many opinions that state that education will be followed by the consequence of having ample opportunities to obtain work so that it will increase welfare. However, this statement is contrary to the findings of Clark and Oswald (1994) research, where the findings were that education and happiness had a negative relationship. According to them, this is motivated by the reason that higher levels of education will encourage people to increase their targets or standards for their own lives with higher targets in earning their income and other targets in their lives. By having higher targets and expectations, the harder it is to achieve, so it will reduce the level of happiness.

The relationship between education and happiness, according to the opinion of several experts of states that greater opportunities to obtain increased income due to increased opportunities to work as a result of increased education is a rational reason why the level of education has an effect significant positive for increasing welfare (Nikolaev, 2016). This is also due to an increase in broader social relations, along with increased capabilities due to increased levels of education. With wider social relations, they will feel happier.

to get a better job (Blanchflower et al., 2006). Meanwhile, according to (Hendrawan & Yanto, 2023). Education shows that education has a positive and significant effect on the level of individual happiness in Indonesia.

Research conducted by Purwanti shows that the Human Developmen Index (HDI) coefficient and school enrolment rate at the age of 16-18 years have a significant impact on increasing the happiness index in Indonesia. Education has both direct and indirect effect on individual happiness. In general, peoplewith higher education tend to be happier than those with less education (Nikolaev, 2016). This finding is in line with other research which shows that the level of happiness in Indonesia is influenced by income and education (Rahayu, 2016). Income still plays a major role in determining well-being and happiness in developing countries (Diener, 2000). The higher the level of education, the greater the opportunity to build relationships and obtain job information, which has a positif impact on happiness (Chen, 2012). Higher education also increases the chances of obtaining a better job and income, thereby increasing individual happiness(De et al., 2011). In other words, the higher a person’s education, the higher the income they receive and the level of happiness they feel (Blanchflower et al., 2006).

Hypothesis 2: Education has a positive effect on the happiness index

C. Income and Happiness Index

Happiness studies in Indonesia still have potential for research. Many previous researches emphasize the importance of material (income) and non-material factors for happiness in Indonesia. Income plays an important role in welfare in developing countries. When basic needs are met and wealth increases, welfare will increase. This means that the richer a person is, the more happiness is influenced by non-material things such as social relationships. This is in line with Maslow's hierarchy of needs theory that the lowest are basic needs and when income is higher the individual will try to fulfill higher needs, namely social needs, esteem and self-actualization (Cao et al., 2013).

According to Ribeiro (,,,,), so far public decision makers have paid too much attention to national income as the only measure of welfare, and have ignored welfare indicators that are more broad and social in nature. However, in his research on people in Brazil, the results showed that increasing income would reduce the possibility of

decreasing happiness (Ribeiro & Lemos Marinho, 2017). Measuring the welfare of society is one of the problems that continues to be studied in the economy. Gross Domestic Products (GDP) or Gross National Income (PNB), which was first introduced at the Bretton Woods Conference in 1944, which functions as a measure of economic progress or development, has been used as a measure of general welfare since the 1960s.
It is stated that GDP has several weaknesses. The existing weaknesses include placing more emphasis on increasing absolute income, ignoring income distribution, not taking into account social costs such as externality costs, not measuring activities outside the market or informal transactions and ignoring the impact of economic activities on the environment. GDP as a measure of economic activity ignores variations in wealth, household production services, damage to the natural environment, quality of social relations, economic security and personal safety and life expectancy (Bergh, 2009).
The Happiness Index is increasingly valued by policymakers as it offers a holistic measure of welfare, capturing aspects beyond per capita income. It assesses well-being through subjective perceptions of life, including mental and physical health, social relationships, work-life balance, environmental quality, freedom, and sense of purpose. This index highlights non-material needs, providing a comprehensive view of welfare. For policymakers, it informs initiatives that promote overall life satisfaction, mental health, social cohesion, and environmental sustainability, aligning policies with the broader well-being of individuals and societies. The happiness indicator is used as a measure that describes the level of well-being because happiness is a reflection of the level of well-being that has been achieved by each individual (Aitken, 2019).

Hypothesis 3: Income has a positive effect on the happiness index

III. METHODOLOGY

A. Multiple Linear Regression Analysis

This research is descriptive in form using a quantitative approach, namely by regressing and analyzing the influence of the independent variables on the dependent variable. The quantitative approach is an approach that begins with the process of processing raw data into information or providing information that is useful in making administrative and economic decisions. The places used in this research are 34 provinces in Indonesia, the time in this research is 2014, 2017 and 2021. Based on the data obtained, this research uses secondary data with the type of panel data which is a combination of time series and cross data. part. Secondary data in this research was obtained or collected by researchers from accountable sources, namely at the Central Statistics Agency (BPS) in 2014, 2017 and 2021, which was then analyzed. This research uses a descriptive analysis method in the form of multiple linear regression to answer the research objectives. According to Gujarati (2012), multiple linear regression is a regression model that involves more than independent variables in influencing the dependent variable as well as through data processing in the Eviews 10 application. Meanwhile, in analyzing panel data, 3 regression models that are often used, namely the Common Effect Model, Fixed Effect Model and Random Effects Models. Then carry out econometric testing in eviews to select the most appropriate panel data model, namely the Chow Test, Hausman Test and Lagrange Multiplier Test. Apart from this, there are other tests, namely the t test, F test and coefficient of determination test (R2).
Operational Definition of Variables

i. Happiness Index (Y): Measures the level of happiness of the population in 34 provinces in 2014, 2017 and 2022.
ii. Income per capita: the amount of income per capita will use data on Gross Domestic Product (GRDP) per capita
iii. Health: The health level indicator uses the life expectancy
iv. Education: the education level indicator uses the literacy rate of the population aged 15 years and over in Indonesia.

B. Analyze of Variance (ANOVA).

Statistical tests used to evaluate mean differences in more than two groups are used to analyze variance (ANOVA).
To analyze differences in average happiness in this study using one Way Anova or known as one-way anova is used to compare more than two groups of data and is a further development of the t-test. One-way ANOVA tests the significance of research results. This means that if two or more samples are proven to be different, they are considered to be representative of the population. To carry out the Anova test, several assumptions must be met, namely:

i. The sample consists of independent groups.
ii. The variance between groups must be homogeneous.
iii. The data for each group is normally distributed. The initial conditions that must be met when sampling is carried out randomly from several (> 2) independent groups, where the value in one group does not depend on the value in the other group.

To test using the One Way Anova method, several steps are required. The steps in using the One Way Anova method are as follows:

i. The first condition is that the data is selected randomly and the data is similar (homogeneous).
ii. Make a hypothesis (Ha and Ho) in sentence form. Information: Ha = there is a significant difference for research materials Ho = there is no significant difference for research materials Variable conditions: a: is a research group variable, namely CMS x: is an indicator variable
iii. Make hypotheses (Ha and Ho) in statistical form. Information: Ha: a1 ≠ a2 ≠ a3...etc. Ho: a1 = a2 = a3...etc.
iv. Determine the level of significance, determine the F table with degrees of freedom = db = N-k, where N is the amount of data, k is the number of variables (CMS)
v. Determine the test criteria: If $Fhitung \geq Ftabel$ then reject Ho, meaning there is a significant difference between the research materials. 7. Make conclusions. Conclusions are drawn based on the hypothesis that has been made, whether it is Ha or whether it is the Ho hypothesis.

Indonesia has 34 provinces spread over thousands of islands. There are six (6) large islands which are the basis for grouping provinces. The group of provinces are Kalimantan, Java, Sumatra, Sulawesi, Papua and Bali.
1 = Provinces on the island of Sumatra (10 provinces = Aceh, North Sumatra, West Sumatra, Riau, Jambi, South Sumatra, Bengkulu, Lampung, Bangka Belitung, Riau Islands)
2 = Provinces on the island of Java (6 provinces = DKI Jakarta, West Java, Central Java, DIY, East Java, Banten)
3 = Provinces on the island of Bali (3 provinces = Bali, NTT, NTB)
4 = Provinces on the island of Kalimantan (5 provinces = West Kalimantan, Central Kalimantan, South Kalimantan, East Kalimantan, North Kalimantan)
5 = Provinces on the island of Sulawesi (8 provinces = North Sulawesi, Central Sulawesi, South Sulawesi, Southeast Sulawesi, Gorontalo, West Sulawesi, Maluku, North Maluku)
6 = Provinces on the island of Papua (2 provinces = Papua, West Papua)

IV. Result and Discussion

A. Test of Panel Data Regression Estimation Model

Table II shows that the Chow Test probability value is 0.0000 < 0.05 so it is better to use the fixed effect model rather than the common effect model. Then the Hausman test shows a probability of 0.0000 > 0.05, which means it is better to use a fixed effect model than a random effect. Because the Chow test and Hausman test are consistently smaller than 0.05, the Lagrange multiplier test does not need to be carried out.

TABLE II. CHOW ANDA HAUSMAN TEST PROBABILITY

Test tool	Chi-Square Statictic	Probability	decision
Chow	129.958053	0,0000	Fixed Effect
Hausman	47.472760	0.0000	Fixed Effect

Source : Data is processed (2024)
Note : The significant level is 0.05

- Multiple Linear Regression Analysis: Based on the F test, it shows that the probability value is 0.0000 <0.05. This explains that the probability value is smaller than the significance level, which means H0 is rejected. So this research can be concluded that simultaneously the variables of health level, gross regional domestic product (GRDP) per capita, and education are significant on the happiness index in Indonesia. Meanwhile, R2 is 0.750 or 75.04%. This explains that the health level variable, gross regional domestic product (GRDP) per capita, explains the happiness index by 75.04%. Meanwhile, 24.06% was influenced by other factors or variables that were not studied.

TABLE: MULTIPLE LINEAR REGRESSION RESULTS WITH FIXED EFFECT MODEL

Variable	Coefisien	Std. Error	t-Statistik	Probability
Constanta	1.089830	0.164298	0.488854	0.6266
Log_health	0.234161	0.093841	2.495295	0.0151
Log_education	0.102218	0.466605	0.219067	0.8273
Log_percapita GDP	0.164298	0.024014	6.841624	0.0000
R-Square	0.750437			
Adjusted R-Square	0.612218			
S.E of Regression	0.022317			
Sum Square Resid	0.032374			
F-Statistik	5.429327			
Prob (F-Statistik)	0.000000			

Source: Processed data (2024)
Note: Significant Level 0.05

i. The Influence of Health on Happines Index: Based on the estimation results of the Fixed Effect model, it shows that individually the Health variable represented by Life Expectancy has a significant influence on the happiness index in Indonesia. When people are physically and mentally healthy, it will certainly have an impact on happiness and vice versa. In this research, the output of health variables has a significant positive effect on happiness in Indonesia. This is supported by several studies, research conducted by Veenhoven (1988), this research shows a positive relationship. He also found that happy people live longer, perhaps because happiness protects physical health. Likewise, research from Cunado (2011) found direct and indirect effects. Indirectly, better health affects the level of happiness. Sabatini's research (2014) also found the same thing that there is a strong relationship between a person's health and happiness.
From research results, Steptoe (2019) states that happiness is correlated with health and social relations. Health and happiness will have a stronger relationship with stronger social relationships. (2013)from his research states that health and happiness influence each other. However, the relationship is quite complicated, because a healthy person may be unhappy, and a seriously ill patient may experience happiness. Research into health and happiness has been increasingly conducted in recent years, providing more insight into the relationship between the two.

ii. The Influence of Education on Happines Index: The findings of this research are that education does not have a significant effect on the happiness index. In line with the research results of Clark and Oswald(1994), where the findings were that education and happiness had a negative relationship. According to them, this is motivated by the reason that higher levels of education will encourage people to increase their targets or standards for their own lives with higher targets in earning their income and other targets in their lives. By having higher targets and expectations, the harder it is to achieve, so it will reduce the level of happiness. The results of this research are that education has no significant effect on happiness.
The findings of this research are different from the research results of Nikolaev (2016) which stated that education has a significant positive influence on improving welfare, because being more educated will have a greater opportunity to obtain a job that can generate high income.
The results of this research contradict the previously stated expectation formulation. The rational explanation for this is that the data used in this research is the percentage of the population aged 15 years and over who are literate. The larger the number means that the smaller the number of illiterate people. The percentage of the population who is illiterate is getting smaller, meaning the opportunity to learn is getting bigger. The findings of this research, show that education does not have a significant effect on the happiness index, this means that the opportunity to obtain higher education does not directly increase a person's happiness. Another rational

explanation is related to the findings from Clark (1994) that increasing education does not increase happiness, because someone who is highly educated will have greater hopes of obtaining a higher income. Expectations that do not match the reality faced will result in reducing a person's level of happiness

iii. The Influence of Income on Happines Index: Happiness studies in Indonesia still have potential for research. Previous research emphasizes the importance of material (income) and non-material factors for happiness in Indonesia. Income plays an important role in welfare in developing countries. When basic needs are met and wealth increases, differences in individual welfare or happiness are greatly influenced by non-material factors such as social relations. This is in line with Maslow's hierarchy of needs theory that the lowest are basic needs and when income is higher the individual will try to fulfill higher needs, namely social needs, esteem and self-actualization (Lu & Hu, 2005)

The results of this research show that GDP per capita, which is a representation of economic growth, has a positive and significant effect on the happiness index in Indonesia. The positive relationship that occurs means that if GDP per capita increases, this will increase the happiness index. This is in line with the results of research by Hysa, E., & Mansi(2020) which states that in European Union countries GDP per capita has a positive influence on increasing happiness, although in terms of income there are differences between countries.

Finding research is different from Ribeiro & Lemos Marinho(2017) The results of their research show that income does not necessarily determine happiness. There are several empirical findings, including factors that influence happiness, namely health, income, education and social capital. Rahayu (2016) show the same results as the results of this study where GDP per capita has a significant and positive effect on the happiness index in Indonesia. The difference in research findings regarding the influence of income, in this case GDP per capita, on happiness, where some research results show that income has no effect on happiness, is because Indonesian society has not yet reached the level of developed countries, fulfilling the physical needs of life which depend on the level of income. , is what determines happiness. If physical needs are met because of high income then a person will feel happy. Meanwhile, people in developed countries have higher life demands to be happy, that is, apart from income, non-physical needs also determine happiness. This research is in line with research on 69 countries showing that people living in high-income countries tend to be happier than those living in countries with low income levels (Sacks et al., 2010).

The difference in research findings regarding the influence of income, in this case GDP per capita, on happiness, where some research results show that income has no effect on happiness, is because Indonesian society has not yet reached the level of developed countries, fulfilling the physical needs of life which depend on the level of income, is what determines happiness. If physical needs are met because of high income then a person will feel happy. Meanwhile, people in developed countries have higher life demands to be happy, that is, apart from income, non-physical needs also determine happiness.

B. Test of Differences in the Average Happiness of Six Provincial Groups in Indonesia in 2021

i. Normality Test: Before carrying out the mean difference test, a data normality test is first carried out on the numerical data, using the Kolmogorov – Smirnov formula. Normality test results can be seen in the following table:

Variable	Statistic	df	Sig.	Information
Indeks Kebahagiaan tahun 2021	0.975	34	0.606	Normal

From the results of the normality test, it is known that the P value is above 0.05, so it can be concluded that the data is normally distributed.

ii. Descriptive of 2021

TABLE IV. DATA DESCRIPTION

Provincial Group	Mean	Std. Deviation	Minimum	Maximum
Province on the island of Sumatra	72.19	1.75	69.74	75.17
Province on the island of Java	70.75	1.49	68.08	72.08
Province on the island of Bali	70.58	0.77	69.98	71.44
Province on the island of Kalimantan	73.78	1.48	72.49	76.33
Province on Sulawesi Island	74.67	1.20	73.07	76.34
Province on Papua Island	72.20	3.29	69.87	74.52

The Anova test aims to determine differences in mean happiness in the six provincial groups observed. The test results can be seen in the following table:

Table V. Level of Significance

Happiness Index for 2021	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	75.945	5	15.189	6.141	0.001
Within Groups	69.253	28	2.473		
Total	145.198	33			

From the results of the analysis, it was found that Fcount was 6.141 with a significance level (P value) of 0.001. Because the significance level (P value) is smaller than 0.05, Ha is accepted, which means there are differences in the Happiness Index in the six provincial groups observed.

iii. Post Hoc Test

If the Anova test shows differences, then the test is continued with a Post Hoc test to see the difference in the mean happiness index between years. The test results can be seen in the following table:

TABLE VI. UJI BEDA KEBAHAGIAAN

Provincial Group		Mean Difference	Sig.
Province on the island of Sumatra	Province on the island of Java	1.440	0.087
	Province on the island of Bali	1.613	0.130
	Province on the island of Kalimantan	-1.594	0.075
	Province on Sulawesi Island	-2.475	0.003
	Province on Papua Island	-0.005	0.997
Province on the island of Java	Province on the island of Bali	0.173	0.877
	Province on the island of Kalimantan	-3.034	0.004
	Province on Sulawesi Island	-3.915	0.000
	Province on Papua Island	-1.445	0.270
Province on the island of Bali	Province on the island of Kalimantan	-3.207	0.009
	Province on Sulawesi Island	-4.088	0.001
	Province on Papua Island	-1.618	0.269
Province on the island of Kalimantan	Province on Sulawesi Island	-0.881	0.334
	Province on Papua Island	1.589	0.237
Province on Sulawesi Island	Province on Papua Island	2.470	0.057

Based on the results of the analysis above, it can be concluded:

a. There is no difference in the Happiness Index between the provincial groups on Sumatra Island and the provincial groups on Java Island with a P value of 0.087
b. There is no difference in the Happiness Index between the provincial groups on Sumatra Island and the provincial groups on Bali Island with a P value of 0.130
c. There is no difference in the Happiness Index between the provincial groups on Sumatra Island and the provincial groups on Kalimantan Island with a P value of 0.075
d. There is a difference in the Happiness Index between the provincial groups on Sumatra Island and the provincial groups on Sulawesi Island with a P value of 0.003
e. There is no difference in the Happiness Index between the provincial groups on Sumatra Island and the provincial groups on Papua Island with a P value of 0.997
f. There is no difference in the Happiness Index between the provincial groups on the island of Java and the provincial groups on the island of Bali with a P value of 0.877
g. There is a difference in the Happiness Index between groups of provinces on the island of Java and groups of provinces on the island of Kalimantan with a P value of 0.004
h. There is a difference in the Happiness Index between the provincial groups on Java Island and the provincial groups on Sulawesi Island with a P value of 0.000
i. There is no difference in the Happiness Index between the provincial group on Java Island and the provincial group on Papua Island with a P value of 0.270
j. There is a difference in the Happiness Index between the provincial groups on Bali Island and the provincial groups on Kalimantan Island with a P value of 0.009
k. There is a difference in the Happiness Index between the provincial groups on Bali Island and the provincial groups on Sulawesi Island with a P value of 0.001

l. There is no difference in the Happiness Index between the provincial group on Bali Island and the provincial group on Papua Island with a P value of 0.269
m. There is no difference in the Happiness Index between the provincial group on Kalimantan Island and the provincial group on Sulawesi Island with a P value of 0.334
n. There is no difference in the Happiness Index between the provincial group on Kalimantan Island and the provincial group on Papua Island with a P value of 0.237
o. There is no difference in the Happiness Index between the provincial group on Sulawesi Island and the provincial group on Papua Island with a P value of 0.057

From the results of the post hoc test, it can be summarized that the provincial groups that have significant differences from other provincial groups are:

TABEL VI. DIFFERENCE IN THE HAPPINESS INDEX BETWEEN THE PROVINCIAL GROUP

Provincial Group		P Value
Sumatra	Sulawesi	0,003
Jawa	Kalimantan	0,004
	Sulawesi	0,000
Bali	Kalimantan	0,009
	Sulawesi	0,001

Source : data is processed

The table is a conclusion from the results of tests of differences in average happiness from six (6) groups of provinces in Indonesia, totaling 34 provinces (based on 2021 data) using analysis of variance. Provincial groups use the name of the island where the province is located.

In terms of the Happiness Index, Sumatra has a significant difference to Sulawesi; Java differs significantly from Kalimantan and Sulawesi; Bali is significantly different from Kalimantan and Sulawesi. The author has not been able to examine in more depth the causes and implications of the existing differences. The author has not found similar research, namely differences in happiness between community groups/regions, therefore the author cannot provide a deeper discussion. The author hopes that this research will open up opportunities for further research.

V. CONCLUSION AND RECOMENDATION

The old paradigm of measuring development success using material indicators has shifted towards a new paradigm that considers humans as the main key to development. This research aims to analyze the influence of three (3) dimensions that make up human development indicators, namely health, education and income on the level of happiness in Indonesia. Health and income have a significant positive effect on happiness. The "Easterlin Paradox" does not occur in Indonesia. Education level does not have a significant effect on happiness, where this finding is different from most other research results, but supports existing similar findings, which are based on rational reasons. The small number of variables analyzed is one of the limitations of this research. There are differences in average happiness in six (6) provincial groups in Indonesia. This is preliminary research that needs to be recommended for further analysis to understand the source of the differences and whether the existing differences have implications practical.

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