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POLEMIC OF ECONOMIC WELFARE IN ASEAN-4

(Informative, reflecting the core content, consisting of 5-15 words)

ABSTRACT

The dynamics of development driven by a sustainable economy and enjoyed by all, without exception. The reason is, the 'welfare concept' seems to only become a discourse and continues to invite world debate about what to do, what the right solution is, and to whom it focused the welfare. This paper aims to analyze the effects of economic inequality, economic downturn, and economic globalization on improving economic growth and happiness. Content concentrated on five variables by focusing on five parameters (UEDI, EDI, EGI, GDP, and HI). We compiled panel data with case studies in ASEAN-4 during the 2015-2020 period. Then, the data processed and presented through IBM-SPSS support. It divided empirical evidence into two structures which are characterized by economic inequality having a negative effect on economic growth, but the impact of the economic downturn and economic globalization affects increasing economic growth. The increase in happiness caused by the positive effects of economic inequality, economic downturn, economic globalization, and economic growth. The controversy about welfare has real implications for repairing economic damage in a broad perspective, so it becomes a priority.

Keywords: Panel data, ASEAN-4, welfare, economic sustainability, equality

INTRODUCTION

Since the 20th century, the debate about economic welfare in the world has continued, especially for developing countries and poor countries (Horner, 2020). Economic growth (GDP) which is a 'symbol' of the prosperity of a region (such as domestic and regional), is now not the only one. The meaning of the increase in GDP has actually become a new controversy, because every economic growth does not have a double effect on people who are in the lower middle income cluster (Amalia et al., 2020). Only those in the upper class enjoy the existence of GDP, and this has created a gap or tension between the rich and the poor.

Four countries in ASEAN, such as Indonesia, Malaysia, Singapore, and Brunei Darussalam or known as 'ASEAN-4', have various similarities, including aspects of history, politics, international relations, culture, economy, and, of course, geographical aspects. With a very close territorial scope, ASEAN-4 is in the spotlight for other ASEAN members (Djafar, 2012). From the historical context, ASEAN-4 once colonized by Europeans such as the UK against Malaysia, Singapore, and Malaysia, while the Netherlands once fought Indonesia over. In politics and international relations, ASEAN-4 often cooperates in terms of trade with extradition agreements (Kusumaningrum, 2013). The community that has formed also makes it easier on the economic side, where the four countries together agree on the ASEAN Economic Community (AEC) agreement, which has been in effect since 2015 ago (Ishikawa, 2021). The most basic part is culture. Culture as an inherent dimension of ASEAN-4 because of the close distance, the 'Malay' people are also inseparable. With the similarity of the 'Malay' language, it also makes it easier for them to communicate. That way, a very close relationship still maintained, especially

the mobility between countries in ASEAN-4, opening up influences that also impact urban areas and minimal conflict.

From the facts that have described, at least it opens bright hopes for ASEAN-4. However, it is possible that all these opportunities will have consequences and challenges in the future. In relation to the problem of welfare, it is necessary to examine deeply the outside world. We should note that economic competition in a country arises not only from domestic but also globally competitive (Kharlamova and Vertelieva, 2013). To start with a vital picture, elements in macroeconomics such as GDP play a major role and give a signal, whether they classified a country as high-income or vice versa. In Figure 1, economic growth based on 2010 market prices in ASEAN-4, on average, fluctuated. It aimed this at 2020, because of the Covid-19 crisis, also hitting the global economy. No exception to GDP, which was affected by -2.96%. In ranking, Indonesia is the highest among the other three countries. Interestingly, only Brunei Darussalam, whose GDP growth is still positive in 2020, which is 1.2%. In fact, in the previous two years (2015 and 2016), the growth declined the most compared to other countries in ASEAN-4.

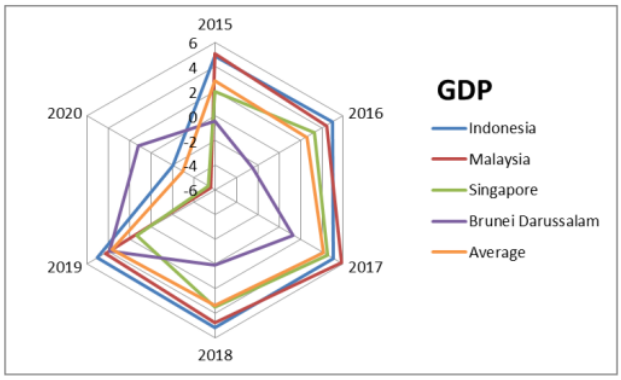

Figure 1 Rate of Change in Real GDP in ASEAN-4 (2015-2020)
Source: Global Economy, 2021

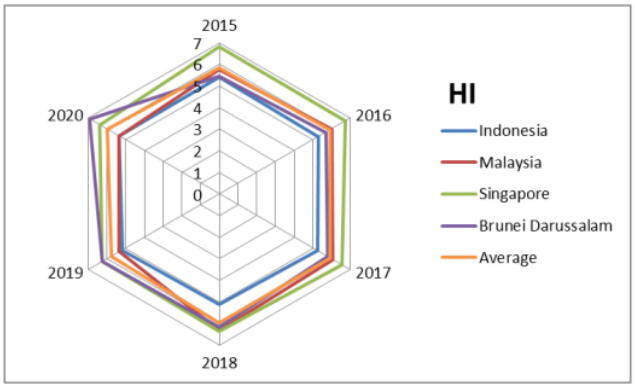

Figure 2 Happiness Index in ASEAN-4 (2015-2020)
Source: Global Economy, 2021

A fresh problem arises when dealing with the level of welfare, which is solely measured by the economic side. On the one hand, currently economists are competing to review matters related to welfare from the perspective of microeconomics involving individuals and households, such as happiness (Zainurossalamia et al., 2021). In fact, people have another meaning regarding whether they earn a decent life, not from income and finances, but from the point of view of happiness. Therefore, happiness considered as something that is difficult to get and in happiness, it also implies the purchasing power of the population and there are nine other assessments in the survey.

Figure 2 displays the happiness of residents in ASEAN-4 for six periods in a positive trend, although from 2016 to 2017 and 2018 to 2019 there was a decrease, but only slightly and the most significant impact was in 2020 of 6.01. Singapore and Indonesia achieved the highest points, which had the smallest happiness index compared to the others. Happiness has implied how important the quality of people's welfare is.

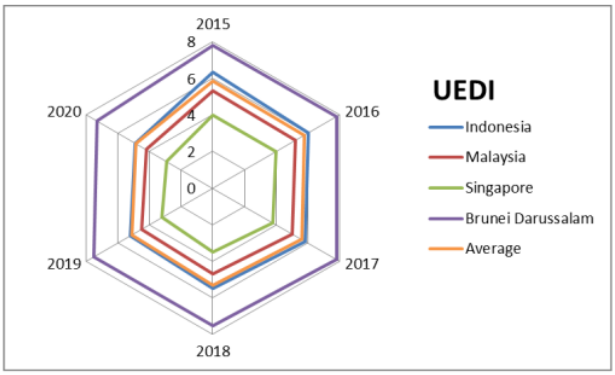

Figure 3 Uneven Economic Development Index in ASEAN-4 (2015-2020)
Source: Global Economy, 2021

Not only in GDP and happiness, but the basic problem of the development process is unequal inequality. The discrepancy between the accumulating increase of economic growth seems to bring up the negative side. An actual performance of the economy needs to be criticized. The distribution of growth does not always lead to equity, but in fact has the potential to increase social problems, such as unemployment and poverty (Bourguignon, 2015). Figure 3 concludes that the inequality in economic development for ASEAN-4 is classified as moderate because it is indeed a middle-income country. Something instead concentrated attention in Brunei Darussalam, whose UEDI value is the most striking because in six years it has been above the average UEDI in ASEAN-4. As additional information, Brunei Darussalam has the potential for abundant natural resource wealth and as a country producing oil and natural gas commodities (Iskandar, Hendarto, and Reza, 2020). Singapore, which covers the smallest area, has the smallest inequality and contributes really to ASEAN-4.

Endogenous-based economic growth does not reflect its impact in two directions. Ideally, inclusive development should also focus on exogenous growth (Crafts and Woltjer, 2021). The argument that can be formed from interpreting economic growth is how big its role is for internal (domestic) progressive and external (global) influences. When compared between EDI and EGI, there are actually two opposite things. The pattern is that EDI must go down and EGI must go up

in the economic order. The bad news is that Indonesia is the region with the most declines and has proven to be not as aggressive as Singapore. In terms of EDI, Singapore is the lowest and Indonesia is the largest. In the EGI, the two countries are mutually exclusive (Singapore is the most dominant and Indonesia is the lowest). At the ASEAN-4 level, the EDI value is between 2 – 3 points and for EGI, the interval is between 71 to 73 points (see Figure 4 and Figure 5).

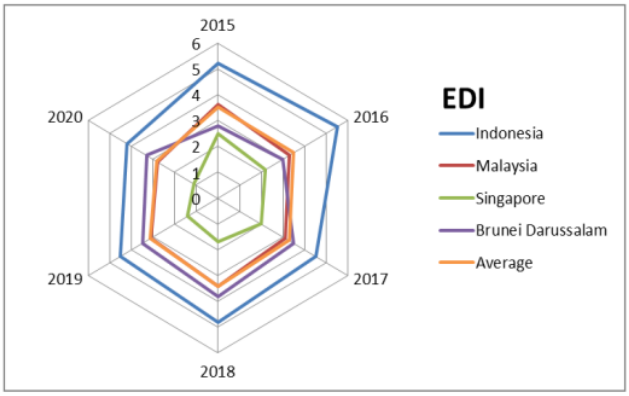

Figure 4 Economic Decline Index in ASEAN-4 (2015-2020)
Source: Global Economy, 2021

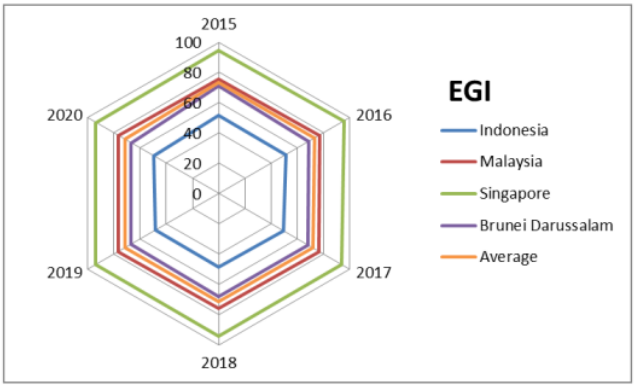

Figure 5 Economic Globalization Index in ASEAN-4 (2015-2020)
Source: Global Economy, 2021

Indications of progress or setbacks referring to the five described elements need to be tested further. There are few studies that examine the relationship between inequality in economic development, economic decline, and economic globalization on GDP and happiness (eg Agusalim and Pohan, 2018; Samimi and Jenatabadi, 2014; Olagunju et al., 2019). Important attention highlights how the dynamics in ASEAN-4 as well as contribute to theoretical and practical developments. Four research questions as the basis for testing are:

RQ.1: How does economic inequality affect economic growth and happiness?

RQ.2: How does an economic downturn affect economic growth and happiness?

RQ.3: How does economic globalization affect economic growth and happiness?

RQ.4: How does economic growth affect happiness?

The series of this paper comprises four plots. In first line is an introduction that presents the objectivity of the research. The analytical framework includes the formulation of hypotheses based on empirical reviews and theoretical reviews (second flow). In the third flow includes data sources, research materials, and econometric procedures. In the third flow, we concentrated it on the results of data interpretation with a series of tests. For the fifth dan six flow, as the ultimate stage to emphasize the findings, limitations, and implications of the research.

ANALYTICAL FRAMEWORK

Prior to the proposal of the hypothesis, a constructive foundation needed to strengthen the theoretical approach and relevant empirical concepts. There are two paradigms that underlie the model framework, namely 'economic development theory' and 'welfare theory'.

Today, economic development policies continue to transform. Chang (2010) divides three important elements in each of these changes, namely increasing wealth, affordability, and new change agents. For wealth, economic growth should reflect the demands of higher quality development. It is necessary to improve political institutions through more passionate accountability and transparency. In addition, with an increase in capital, institutions are far more affordable. If an institution that is run and established is more effective, then the wheels of the economy run optimally. There are three important differences in the 18th century, 19th century, and in the early 20th century, where the demand for economic harmony creates optimal change, resulting in the emergence of new institutions. Banks had time to fight opposition from the host because industrial capitalists were increasing and supporting new directions (Lee, 2020). Now, workers quite feared because there is protection from a state that wants prosperity. From here, it formed a rule that discussed labor against the capitalists. Institutions continue to move in the opposite direction and end the dark civilization.

In traditional economic development, the acceleration of production inputs determined by the competitiveness of the industry as described by the first production function. In the 'take off' phase, Kačar, Curić, and Ikić (2016) developed a complex local model to be integrated with territorial innovation by incorporating environmental dimensions (see the second equation).

$$Y = f(L, C) \quad (1)$$

$$Y = f(I, LM, L, C) \quad (2)$$

Information about symbols: Y (production), L (labor), C (capital), I (innovation), and LM (local milieu).

The development process requires connectivity to achieve economic prosperity. It focused this alignment on if development can encapsulate welfare. From a broader perspective, Beckfield et al. (2015) defines welfare as the ability of a country to be present and play a role in solving problems such as housing, health, education, social insurance, subsidies or help to the poor, and other forms of social services. The state clearly plays a vital role in or mediator for the welfare of its population. We expect determinants in social and material influences to reduce disparities in the health and education sectors. These two sectors clearly closely related that support a higher system and power (Djauhari, 2018). The increase in population is certainly more

comparable through the addition of health and education facilities to minimize inequality (Beckfield, Sigrun, and Elyas, 2013; Bambra, 2005). From these two major theories, it can enrich four research hypotheses related to model design, where:

H1 and H4: There is a negative effect of economic inequality on economic growth and happiness.

Since Adam Smith argued about 'social differences allow all people to live and without exception', leading to a long debate about how to resolve inequality' Both from a positive and a negative side, there is a growing belief that social differences in a region, become an inseparable framework of inequality natural order between the rich and the poor. We expect those with high incomes to guarantee the livelihoods of the poor (Singh and Singh, 2020; Lepenies, 2016). The lengthy discussion of the disparities that arise in GDP has divided the rich and the poor. They examined the permanent trend towards the distribution of income as one measure of well-being (such as GDP). According to Sen (1997) GDP in micro scope (GDP per capita) is a central measure by dividing the total GDP against the population in a country. However, the average value may not have a systematic impact and leads to extreme values. The unequal distribution of income has become a longstanding controversy that has not resolved and we sometimes doubt its explicit impact. The fact now, there is a slope (slope) in the distribution of income. This is an opportunity for people who are struggling to achieve prosperity, but overall, they cannot avoid it as an actual threat (Raeskyesa, 2020).

Various studies have investigated the relationship between economic inequality and happiness on a regional, national, and cross-border scale (eg Diener, Diener, and Diener, 1995; Dunn, Gilbert, and Wilson, 2011; Berg and Veenhoven, 2010; Alesina, DiTella, and MacCulloch, 2004; Stevenson and Wolfers, 2008; Hagerty, 2000; Diener and Oishi, 2000; Helliwell and Huang, 2008). In conclusion, there is a negative correlation of these two components. Income inequality contributes significantly to happiness, where people demand public trust and justice. Happiness will decrease by itself, if followed by high income and vice versa, there will be a drastic increase if economic stability decreases (Oishi, Kesebir, and Diener, 2011). Here, household income continues to be boosted by additional employment opportunities.

H2 and H5. There is a negative effect of an economic downturn on economic growth and happiness.

An economic recession has the potential to eliminate job opportunities, result in lower wages and higher unemployment. Economic opportunities are likely to be lost and lower private investment and education costs. In the long run, this will last a long time (Sobotka, Skirbekk, and Philipov, 2011). In addition, the period of economic recovery is difficult as long as growth does not work and used for recovery capacity. Often, the long term gives the damage, and it hinders or prevents a full recovery. For example, in 2008, when the world rocked by the global financial crisis. Many people lost their jobs and production output (Ollivaud and Turner, 2014). From this problem, it provides many lessons about the importance of macroeconomic policies that are useful for assessing how much loss is and how long it will last. Cycle recovery will completed, if previously able to predict the amount of losses in the short and medium term, so that the risk can relatively resolved. Without a crisis, cross-economic structures will also not race to create creativity and innovation. The impact of the crisis requires intense evaluation, given the impossibility of factual knowledge to avoid difficulties. Policy change is a point that must be considered, especially other derivative affects.

Academic attention to the impact of the economic crisis and happiness also reviewed by Wesselbaum (2019) and Greve (2012), if an increase in happiness followed a high per capita

income. However, it requires empirical evidence. In 2010, happiness levels in 15 European countries declined because of inequality after the financial crisis. In a broader context, from 106 countries that were empirically tested during 2006-2013 (financial crisis), they found that there was a strong correlation between happiness and income. Because of macroeconomic policy factors, cultural differences, and drivers such as gender inequality, they identified that happiness drives the business cycle. The next surprise is that happiness also increases income.

H3 and H6. There is a positive effect of economic globalization on economic growth and happiness.

In Turkey, in 3.5 decades (1980-2015), Kılıçarslan and Dumrul (2018) analyzed global changes and GDP growth. The global changes referred to applied with the globalization index (social, political, and economic). The fundamental difference concludes that the increase in the globalization index does not bring significant changes to GDP growth in Turkey and the result is negative. This is in contrast to countries in South Asia. Hasan (2019) actually reports that the overall impact of globalization speeds up GDP growth in the long term, from 1971 to 2014. Although in the short term, the effect is not significant, but it shows the regression coefficients in each country to have strong currents. In their new circumstances, they have adopted globalization rapidly and are trying to find the right policy in their diplomatic relations with world developments. The various social, political, and economic characteristics also have implications for the elasticity of the domestic government's power to realize globalization.

It has expanded the connectivity between global influence and happiness through a series of analyzes (Saad et al., 2019; Bran, Radulescu, and Ioan, 2015; Lin, Lahiri, and Hsu, 2017). Observing the impact of globalization on happiness in 145 countries proves that there is a contrasting spillover effect. There are negative and positive effects of these two relationships, where the endogeneity factor in happiness is inversely proportional to the inverse Kuznet 'U' curve. Welfare is low, has been detrimental to the poor. Beyond a certain threshold, it reduces inequality, but this does not last long. The inequality of happiness in developing countries is more than in developed countries, which implies that there is a non-linear effect between the two.

Developed regions continue to maintain sustained GDP growth, but developing regions tired of spurring gains. For more than a decade, the fundamental problem is motivation in revitalizing the need for resources for a better life. The source of happiness is not straightforward with economic globalization. Many factors need to be assumed in realizing favorable conditions for all countries. The interesting fact is that especially developing countries have benefited from the lack of globalization because isolating it from global interests can reduce the potential for conflicts such as war.

From the 125 countries suspected of having happiness above average, they tested by considering aspects of globalization (such as entrepreneurship). The influence of the sophistication of technology and information is more to produce new entrepreneurs, and the goal of happiness is a staple in the world's mission. Those with higher globalization and happiness scores appeared to have a positive impact on economic globalization. Conventional growth measures such as GDP are not just the focus now, but expansion through global happiness and investment in the future.

H7. There is a positive effect of economic growth on happiness.

The link between GDP and happiness is a new nuance. So far, researchers in various parts of the world are competing to discuss these two dimensions. Degutis, Urbonavičius, and

Gaižutis (2010) try to relate GDP, which represents the state of well-being and individual life satisfaction in the European Union. For a decade (2000-2009), the country's additional capital accumulation (wealth) tested with an aggregate of life satisfaction. The similarity of these two indicators uses a GDP per capita barometer. The trend of cross-country correlation through regression analysis confirms that there is a positive relationship between GDP with life satisfaction. In the European Union, the expression of the strength of the two occurs in countries in Eastern Europe. Although the level of welfare in Western Europe is higher, the pressure on happiness is aggressive than in Eastern Europe. This form of relationship expected to be more sensitive if life it apply satisfaction indicators with more accurate measures.

Wijaya et al. (2021) highlighted the mechanism linking happiness and economic growth in Romania from 2013 to 2019. Through the specification of the model using path analysis, these findings support both hypotheses that there is a significant effect of economic growth on happiness. What is striking is that the welfare of the population, which is measured by the level of happiness, has successfully developed in Romania.

RESEARCH METHOD

The research technique is a constructive foundation to support this paper. Figure 6 summarizes the three plots that are the most important part. The first step is collecting data, the second is data interpretation, and the elaboration of the findings in the third step.

For starters, we search data through documented reports or publications from official websites that record global economic developments. We get this secondary data from the Global Economy in 2021. It based the form of data on time-series and cross-section data, which is an amalgamation of ASEAN-4 (Indonesia, Malaysia, Singapore, and Brunei Darussalam). We selected these countries based on economic characteristics and have greater influence than other countries in ASEAN. In addition, these four countries are also part of the United Nations and connected globally as an attachment to a broad economy.

Figure 6 Illustration in Research Stage
Source: Author's creativity

According to the research design, quantitative analysis formed data interpretation and applied through Ordinary Least Square (OLS). The OLS method only focuses on pooled effects and fixed effects. Modification of data from ASEAN-4 as a whole is 144 units. This number is a

combination of three independent variables that function as explanatory variables and two dependent variables that aim as explanatory components in a linear equation (eg Zarkasyi, Kurniawan, and Darma, 2021; Johan, 2020). With a sample for 2015-2020, each variable has a coverage of 24 data units.

Referring to Suparjo et al. (2021), the consistency of the translation with the OLS technique is a systematic calculation of the intercept and constant coefficients for six periods planned into the following basic form:

$$Y_{it} = \beta_0 + \beta_1 X_{1it} + \beta_2 X_{2it} .... \mu_{it} \quad (3)$$

The basic function of the 3rd equation is standard, so it needs to be adjusted to the needs of the analysis into two structures with the 4th and 5th equation formulas.

$$GDP_{it} = \beta_0 + \beta_1 UEDI_{it} + \beta_2 EDI_{it} + \beta_3 EGI_{it} + \mu_{1it} \quad (4)$$

$$HI_{it} = \beta_0 + \beta_4 UEDI_{it} + \beta_5 EDI_{it} + \beta_6 EGI_{it} + \beta_7 GDP_{it} + \mu_{2it} \quad (5)$$

Information about symbols: (constant/intercept), GDP (Gross Domestic Product), HI (Happiness Index), $\beta_{1,4}$UEDI (slope coefficient of Uneven Economic Development Index), $\beta_{2,5}$EDI (slope coefficient of Economic Decline Index), $\beta_{3,6}$EGI (slope coefficient of the Economic Globalization Index), μ_1 (1st error), μ_2 (2nd error), and $_{it}$ (time-lag)

Interpretation of data on parameters in OLS focuses on three absolute requirements, including descriptive statistics, individual tests, simultaneous tests, and validity tests (Benitez et al., 2020). General guidelines in descriptive statistics show the range, mean, and standard deviation (SD) gain. Th, individual tests, simultaneous tests, and autocorrelation tests interpreted through the T-test (partial), F-test, and D-W test. Meanwhile, the validity of secondary data can vary with the Kaiser Meyer Olkin-Measure of Sampling Adequacy (KMO-MSA), Bartlett's test, and Anti-image Correlation (Prasetyo and Sunawan, 2019; Chan and Idris, 2017). Data processing is supported by IBM-SPSS software.

ANALYSIS

The first instrument is an examination of observational data. Table 1 displays descriptive statistics on UEDI, EDI, EGI, GDP, and HAP with unique achievements. The units of account for UEDI, EDI, EGI, and HAP are indexes, while GDP is only in percentage terms (%).

In six periods, the six variables are equally inconsistent (up and down) in their growth. EGI has the largest range, and the smallest is HI. Similar to the previous results, EGI and GDP are different variables to get the mean, where GDP is the lowest and EGI is the largest. In SD, EGI is the most dominant, while HI has the least contribution.

Table 1 Summary for Descriptive Statistics (Obs = 144)

Components	Range	Mean	SD	Remarks
UEDI	4.90	5.404	1.552	Fluctuation
EDI	4.40	3.283	1.142	Fluctuation
EGI	47.13	72.075	16.408	Fluctuation
GDP	11.40	2.284	3.368	Fluctuation
HI	1.82	5.907	0.562	Fluctuation

Source: calculation with IBM-SPSS

The next statistical escalation is validity. An assumption in the first stage is to review the distance comparison index involving partial correlation coefficients. The KMO value is close to 1 or over 0.621> 0.50, then it concluded that it meets the requirements because the variable pair has a large value for the sum of the squares of the correlation coefficients. As for the Barlett value also meets the standard parameters (0.000 <0.05). Then, the traditional measure to evaluate the overall suitability using the Chi-Square (Hu and Bentler, 1999), which is shown in Table 2, clarifies that there is no violation of this model.

Table 2 1st Confirmatory Factor Analysis (CFA)

Part	Result	Criteria and reference	Decisions
KMO	0.621	>0.50 (Melati and Dharmmest, 2010)	Can be applied
Barlett's test of Sphericity	78.928	Approx. Chi-Square> 0.7 (Hair et al., 2010)	Good
Sig.	0.000	<0.05 (Salkind, 2010)	Fulfilled

Source: calculation with IBM-SPSS

Table 3 2nd Confirmatory Factor Analysis (CFA)

Part	UEDI	EDI	EGI	GDP	HI	Criteria and reference	Decisions
UEDI	0.726[a]	-0.051	0.301	0.184	-0.348	> 0.50	Feasible
EDI	-0.051	0.622[a]	0.829	-0.598	-0.044	(Hauben,	Feasible
EGI	0.301	0.829	0.613[a]	-0.356	-0.469	Hung, and	Feasible
GDP	0.184	-0.598	-0.356	0.284[a]	-0.145	Hsieh, 2017)	Not feasible
HI	-0.348	-0.044	-0.469	-0.145	0.745[a]		Feasible

Source: calculation with IBM-*SPSS; Note:* 'a' is Measures of Sampling Adequacy (MSA)

In Table 3, which presents the Anti-image Correlation matrix, partially evaluates all components, if they are worth analyzing (Ardani, Utomo, and Rahmawati, 2021). Here, the interpretation in correlation tested with Measures of Sampling Adequacy (MSA). Only four variables are eligible to be analyzed because the MSA is higher than 0.05. GDP is the only variable that is stated not on the right track, where MSA <0.05.

Table 4 Effect of UEDI, EDI and EGI on GDP

Model	UEDI*	EDI*	EGI*	Criteria and reference	Decisions
Constant		-28.634		Negative/positive (Dhakal, 2018)	Fulfilled
T and Sig.	-0.649; 0.524	3.458; 0.002	2.487; 0.022	Negative/positive and p <0.05 (Hermawati and Handayani, 2018)	H1: accepted, H2: rejected, and H3: accepted
F and Sig.		4.623; 0.013		Negative/positive and p <0.05 (Achmad and Witiastuti, 2018)	Effect simultaneously
R		0.640		Ideally is 0.40 – 0.59: moderate or 0.60 – 0.79: strong (Syahputra and Lubis, 2019)	Strong correlation
R^2		0.410		0 – 1: very strong or very weak (Chicco, Warrens, and Jurman, 2021)	Variance at medium level

Durbin-Watson		1.459		4 – D-W <DL: negative autocorrelation or 4 – D-W> DL: negative autocorrelation (Chen, 2016)	There is no autocorrelation disorder
Obs.	144	144	144	[redacted]	

Source: calculation with IBM-SPSS; *Note:* *Model-1

Table 5 Effect of UEDI, EDI, EGI, and GDP on HI

Model	UEDI**	EDI**	EGI**	GDP**	Criteria and reference	Decisions
Constant		2.664			Negative/positive (Dhakal, 2018)	Fulfilled
T and Sig.	1.620; 0.122	0.190; 0.851	2.316; 0.032	0.641; 0.529	Negative/positive and p <0.05 (Hermawati and Handayani, 2018)	H4: rejected, H5: rejected, H6: accepted; and H7: accepted
F and Sig.		8.004; 0.001			Negative/positive and p <0.05 (Achmad and Witiastuti, 2018)	Effect simultaneously
R		0.793			Ideally is 0.40 – 0.59: moderate or 0.60 – 0.79: strong (Syahputra and Lubis, 2019)	Strong correlation
R^2		0.629			0 – 1: very strong or very weak (Chicco, Warrens, and Jurman, 2021)	Variance at high level
Durbin-Watson		1.804			4 – D-W <DL: negative autocorrelation or 4 – D-W> DL: negative autocorrelation (Chen, 2016)	There is no autocorrelation disorder
Obs.	144	144	144	144	[redacted]	

Source: calculation with IBM-SPSS; *Note:* **Model-2

Table 4 highlights the 1st model on the effect of economic inequality (UEDI), economic downturn (EDI), and economic globalization (EGI) on economic growth (GDP), while Table 5 results from calculations between UEDI, EDI, EGI, and GDP. on happiness (HI) for the 2nd model. There is a moderate correlation in model-1 and model-2, in fact the relationship is very strong. As can see from the correlation (R) of these two structures. In other IBM-SPSS outputs, the results of D-W, which represent these two models, are also free from autocorrelation problems. There are striking similarities and differences, where the first model has a negative constant and in the second model, the constant value is actually positive. Simply put, some statisticians pay enough attention to the sign in the constant (positive or negative). According to Shryock and Siegel (1976), all changes in the independent variable in a certain period (Xi) are worth '0' and reflect the dependent variable (Y).

From the different loads, the partial power in the individual relationship of each variable and the overall simultaneous strength in the two models are very opposite. The scenario from the F-test for model-1, that UEDI, EDI, and EGI together have a positive effect (F = 4.623) and in model-2, UEDI, EDI, and EGI simultaneously have a significant effect (F = 8.004). In the partial test, we prove that H1 has a negative effect on GDP (t = -0.649), while H2 and H2 have a

positive effect on GDP (t = 3.458 and 2.487). At H4 (t = 1.620), H5 (0.190), H6 (2.316), and H7 (0.641) have had a negative impact on IR.

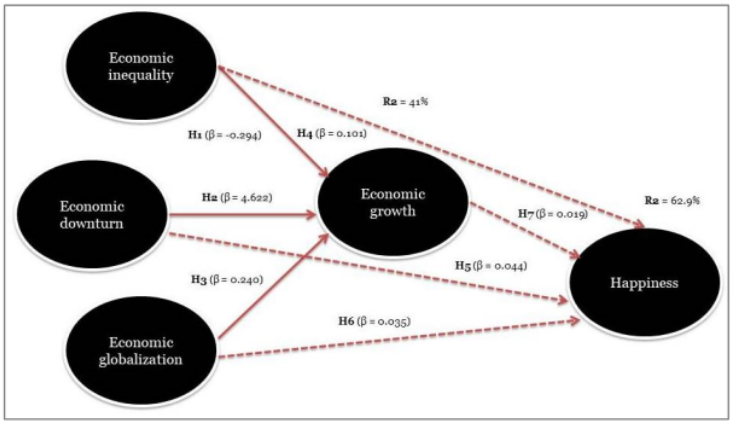

Figure 7 Path Coefficient
Source: calculation with IBM-SPSS; *Note:* —— structure-1 and - - - - structure-2

Tradition in OLS contains how the relationship from one variable to another variable. In this study, Unstandardized Coefficients symbolize all relationships (see Figure 7). In terms of economic growth, the determination of the path of economic inequality, economic decline, and economic globalization on economic growth is 41%. There are still 59% factors outside the first structure. On the path linking economic inequality, economic downturn, economic globalization, and economic growth to happiness, the result was 62.9%. This figure is much higher than the first structure. Thus, the error value in the second structure is 37.1%.

The Global Economy (2021) shares specific definitions of UEDI, EDI, EGI, GDP, and IR. First, the UEDI as an index that reviews inequality in economic development that includes the dimensions of inequality in the economy of a country. Regardless of the real economic performance, if the index value increases, it means that the greater the economic inequality. Second, EDI is an economic downturn in a country that considers macroeconomic elements. Progressive economic attention of the population's economy fully measured, referring to the unemployment rate, Gross National Product (GNP), poverty, productivity, business failure, inflation, income per capita and debt. EDI also evaluates sudden declines in trade balance collapses, devaluations of national currencies, commodity prices, and foreign investment. The condition is that the smaller the indicator value, the lower the economic decline in a country. Third, EGI is a popular index used in reviewing the economic flows of a country and the world level through international investment and international trade. The EGI is also useful for looking at investment and trade restrictions (eg capital controls and tariffs on global investment). The variables that have described are the basis for each dimension to be combined in an index that ranges from 0 to 100. Fourth, we consider GDP the most commonly applied indicator for forecasting and the economic intensity of a country broadly in percentage units. Economic growth rate (GDP) refers to the market price and the national currency against the USD constantly in 2010. GDP represents the amount of production, how much decreased, or increased. Fifth, IR is a new indicator to be an actual comparison between countries at a certain

time trend. They collect data in IR through annual surveys and reported worldwide, where respondents provide information regarding their quality of life. The HI scale ranges from 0 (not happy) to 10 (happy).

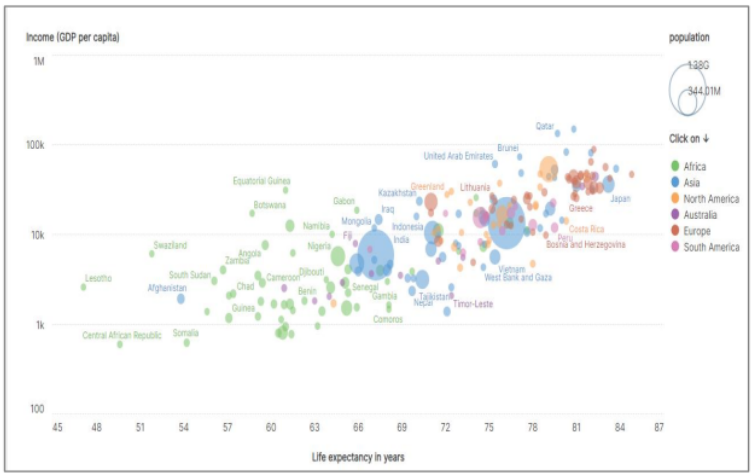

Figure 7 Life Expectancy in the World of 2020
Source: Scimago Graphica, 2021

The anticipation that must be considered is to control the forces that combine economic growth and happiness. This is inseparable from the carrying capacity and capacity of workers in productive age to bring out their ability to create creativity and innovation. The influence of the outside world is inevitable. Figure 7 explains how the level of life expectancy globally. When the life expectancy in Japan and Iceland is at the maximum level of 84–87 years with an income per capita at an interval of 70,000 USD to 75,000 USD per year, but there are countries with the highest GDP per capita such as Qatar, but their life expectancy is still below Japan and Iceland. For additional information, countries in Africa (Somalia and Republic of Central African), GDP per capita is not over 1,000 USD in 2020. Life expectancy in these two countries is only 49–54 years. Hunger, land grabbing, political turmoil, and it complicated civil war in the African region situations that cause the problem of poverty to never end. Mongolia and Vietnam are two examples of countries where the welfare of the population almost evenly distributed (lower-middle-upper). The life expectancy of both is equivalent to 67–78 years. They group life expectancy maps on six continents, including Africa, Asia, North America, Australia, Europe, and South America.

The relationship between welfare and wealth is subjective, because it is a major issue in social science. Yu and Wang (2017) have found a complex relationship between happiness and income. The proof, money does not always give happiness and vice versa. When an individual's material wealth has been at its maximum, then it no longer encourages happiness (Easterlin, 1995). They often referred this idea to as the 'Easterlin paradox', where wealth does not lead to happiness. Each individual has their own perception, and wealth does not influence satisfaction in their life. Spontaneous comparisons of themselves and others are not equal.

Gudmundsdottir (2011) studied the effect of the economic crisis on happiness in Iceland. His findings concluded that the economic crisis was the reason for the decline in welfare. Despite an increase in income from 2007 to 2019 in Iceland, happiness has disrupted as variances in social relationships such as health and demographics have detected to decline with financial hardship. There is a limited shift from the economic crisis to happiness.

In ASEAN, GDP growth appears to have increased during the period 2012 to 2017. Economic globalization has positively affected GDP performance. Support for technology diffusion, productivity, domestic resources, and capital allocation have played a vital role in the ASEAN economy. Sardiyo and Dhasman (2019) illustrate that the effect of economic globalization significantly related to GDP. Economic globalization has well received by ASEAN members such as Vietnam, Malaysia, Cambodia, Singapore, Indonesia, Laos, the Philippines, Thailand, Myanmar, and Brunei Darussalam.

CONCLUSION

This paper aims to understand the relationship between economic inequality, economic downturn, and economic globalization on economic growth and happiness in ASEAN-4 over six periods. Through the OLS, there are seven important explanations referring to the research objectives. Empirical evidence finds that the economic downturn and economic globalization have a positive effect on economic growth, while economic inequality has a negative effect on economic growth. Another interesting thing is that economic globalization and economic growth actually have a positive effect on happiness. Economic inequality and economic downturn have had a negative effect on happiness.

The research output also concluded that of the seven hypotheses, four accepted (H1, H3, H6, and H7) and four rejected (H2, H4, and H5). With a constant of -28.634, it represents that if UEDI, EDI, and EGI have no effect, then GDP will be worth -28.634. A constant value for positive HI shows that UEDI, EDI, EGI, and GDP have had an effect of 2.664. The individual contribution represented by the coefficient value represents that every 1% increase in EDI and EGI, it will increase GDP by 462.2% and 24%, respectively. GDP will fall by 29.4% if UEDI increases by 1%. Additional facts also reveal that with an additional 1%, IR increased rapidly by 10.1% through UEDI, 4.4% from EDI, 3.5% from EGI, and 1.9% from GDP.

LIMITATIONS AND FURTHER RESEARCH

Our paper examines only economic growth and happiness that is affected by economic inequality, economic downturn, and economic globalization. Therefore, there are limitations to investigations based solely on direct effects and a short observation period. Because of its short-term nature, it would be very interesting to study it in the long-term using a larger sample. Data interpretation with IBM-SPSS is only limited to pooled effects and fixed effects. It is future work to implement random effects through additional statistical program support. Another shortcoming is that objectivity only covers ASEAN-4, even though there are other countries that are members of ASEAN, namely Laos, Cambodia, the Philippines, Thailand, Vietnam, and Myanmar. The investigation also applies the mediating effect to predict its effect indirectly. We expect the research contribution to provide continuity for the follow-up agenda through a broader consideration of methods and data.

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