HUMAN CAPITAL, INSTITUTIONAL ECONOMICS AND ENTREPRENEURSHIP AS A DRIVER FOR QUALITY & SUSTAINABLE ECONOMIC GROWTH[*]

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Abstract. The Indonesian government policy in encouraging sustainable economic growth to reduce unemployment, poverty and inequality is threatened to fail, because economic growth does not reach targets and is not of quality. The purpose of this research is to explain the four pillars of growth and development namely; human capital, social capital, institutional economics and entrepreneurship as the main drivers of quality and sustainable economic growth. This research method used primary data on entrepreneurship and SMEs in the provinces of Central Java and Yogyakarta. The correlational form of recursive model path analysis was used as analytical method. The research results show the very strong role of human capital as the main key in driving economic growth both directly and indirectly. The existence of human capital and social capital will further encourage new economic institutions, furthermore new economic institutions will encourage the competitiveness of productive entrepreneurship and high, quality, and sustainable regional economic growth. The policy implication is that high, quality, and fundamentally sustainable economic growth must be built on the four main pillars basis namely; human capital, social capital, institutional and entrepreneurship in order to be more successful in reducing development problems; unemployment, poverty and income inequality.

Keywords: human capital; social capital; institutional; entrepreneurship; economic growth

1. Introduction

Indonesia's economic growth is largely supported by foreign investment and inappropriate consumption sector, resulting in low, unqualified and high cost economic growth. In modern economic theory, quality economic growth is determined by technological factors and the accumulation of human capital as the main determinant in the industry and the economy as a whole (Prasetyo, 2008; Ganeva, 2010 Acemoglu, 2014). The argument is

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because human capital is able to create efficiency, influenceiveness, creativity, innovation and better productivity. Over the last few decades much economic research has focused on the accumulation of human resources and their impact on the economy. Theoretically and empirically, human capital is conclusively believed to be positively associated with economic growth (Altinok, 2007; Hanushek, 2007; Prasetyo, 2008, 2019; Ganeva, 2010; Acemoglu, 2012, 2014; Skare, 2015; Ali, 2018; Baltgailis, 2019; Vigliarolo, 2020). That is, theoretically, the human capital factor has long been believed to be positively associated with quality and sustainable economic growth. While empirically, this said relationship does not always hold for several reasons (Afzal, 2010; Pelinescu, 2015). Afzal et al. (2010) argue that the relationship between school education and economic growth is negative in the short term. Meanwhile, Ramos et al. (2009) have explained the negative influences on unemployment can be explained by the influences of an overpopulation of tertiary education, which does not meet the needs of the regional labor market. Furthermore, Pilinescu, (2015) found a negative influence from the endowment factor of human capital on growth and unemployment, especially in agricultural areas. The argument is because some of the population of highly educated people who live in agricultural areas work elsewhere in areas close to the city. However, it can be stated that these studies still state that there is a negative relationship between human capital and economic growth because in general their data is very limited dan using simple measuring dimensions. For example the human capital factor is only measured by the level of education which is not representative to measure the dimensions of human capital.

Cohen's research (2007) resulted in a strong and significant positive relationship between human capital and economic growth. The results of Cohen's research (2007) confirms that the limited and poor human capital measurement model produces poor results. In addition, the results of Estrin's research (2016) with multilevel human capital measurement dimensions found that specific entrepreneurial human capital is relatively more important in commercial entrepreneurship, and general human capital is more important in social entrepreneurship, while the influence of human capital depends on the rule of law (institutional system) . Estrin (2016) explains that since the level of information content is low in measuring the human capital dimension of the education level the previous literature has found that increasing education is not related to economic growth. Furthermore, the results of Ali's recent empirical research (2018), based on data of 132 countries over 15 years, have also found that human capital plays a positive role in GDP growth per capita, and is strongly and positively related to economic growth. The empirical fact is economic opportunities strengthen the influence of human capital, business and trade growth, domestically and internationally. Ali's research (2018) also found that the inconclusive results in the previous empirical study of human capital and growth might be due to the bias of the omitted variables, because the study did not include variables related to social capabilities. Thus, the urgency of this research result article tends to be more supportive of a positive and significant link between human capital and economic growth both theoretically and empirically.

The objective of the unemployment, poverty and inequality of income distribution reduction policy strategy is difficult to achieve without quality, high and sustainable economic growth driven by the capacity of smart, skilled, knowledgeable, inclusive, creative, innovative, productive and adaptive human capital (Prasetyo, 2008; 2019; Cadil, 2014). At present, the empirical fact is that many economic opportunities require human capital, and subsequently human capital further strengthens economic growth and competitiveness and social welfare (Prasetyo, 2019). The role of human capital is an important and significant key factor in promoting quality economic growth (Cohen, 2007; Estrin, 2016; Ali, 2018; Prasetyo, 2008, 2019). The novelty of the purpose of this article is to describe the important role of human capital in creating new economic institutions, which in turn encourage entrepreneurial competitiveness and quality economic growth in a sustainable manner. This research article uses fundamental micro empirical data. Novelty of the dimensions of fundamental micro empirical data for the human capital variables in this article are measured more comprehensively through the ratio dimension of education level, skill, experience, level of productivity, and level of maturity (Prasetyo, 2017, 2019). If the Government of Indonesia's policy strategy in encouraging economic growth to reduce unemployment, poverty and inequality is only driven by foreign investment and consumption levels, without paying more attention to the potential accumulation of human capital capacity, then the policy strategy will never succeed, and will clearly fail

again (Prasetyo, 2011, 2019). High-quality, modern and sustainable economic growth must be created by quality factors and human capital capacities that are accommodating and driven by an entrepreneurial culture (Prasetyo, 2008, 2011, 2019), since there is no significant economic growth in any country without adequate human resource development (Sankay, 2010).

In addition, the results of Doran's research (2018) using macro data from the GEM (Global Entrepreneurship Monitor) show that entrepreneurial attitudes are found to stimulate GDP per capita in high-income countries only, while entrepreneurial activities are found to have negative influences on the middle and low income economy. Meanwhile, (Baudreaux, 2019) still using data from the GEM that measures entrepreneurship and institutions with the EFC (Entrepreneurial Framework Conditions) found that entrepreneurship only encourages economic growth in developed countries, but not in developing countries. Boudreaux, (2019) also found that the country's institutional environment also only contributed to economic growth in more developed countries, but not in developing countries. The results of the research (Doran, 2018; Baudreaux, 2019) actually become important arguments for the growing urgency of the article that the authors propose and future research as well. Doran (2018) also realized that different aspects of entrepreneurship were found to affect growth differently, but the micro data in GEM was not available. Doran (2018) recommends the need for further development of GEM data, at the regional level, to facilitate regional entrepreneurship analysis. Research results conducted by Dvoulety, 2018 have also stated that they have failed to prove the impact of entrepreneurship on the HDI (Human Development Index). Based on the results of the study, (Dvoulety, 2018) has also recommended that there are still many efforts that need to be made to better understand various forms of entrepreneurial activities in developing countries, such as its institutional context, and its relation to regional economic development. For the sake of this article, we try to do dispositions and novelty and the urgency of using micro fundamental empirical survey data on MSME entrepreneurship households at the regional level of the DIY and Central Java Provinces of Indonesia, to analyze macroeconomic data, specifically on the variable quality of economic growth in question in this article.

2. Literature review

Theorically and empirically, economic growth is largely determined by a number of investments. Many forms of investment, whether physical or non-physical, and increasing the capacity of human capital are included in the type of non-physical investment that requires a long process and economic freedom in order to develop better. Empirically, the combination of the use of both types of physical and non-physical investment can increase economic growth, create employment opportunities and reduce poverty, (Seran, 2018). Human capital investment theory is often based on a number of empirical evidence that "educated and skilled individuals" almost always have a tendency to produce better than others. It seems that the basic concept of the theory has now been increasingly developed to be applied in the field of entrepreneurship consistently. According to Davidsson (2003) in a theoretical perspective, understanding the relationship between social capital exploitation and human capital is an important area of future research. Davidsson (2003) has recommended advancing our understanding of the role of social capital, human capital and social relations and newborn entrepreneurial networks and learning the best ways to facilitate them is an important activity for future entrepreneurial research.

In an economically free society, every individual in the community succeed or fail based on their own individual efforts and abilities. Meanwhile, free and open community institutions do not discriminate against them (Miller, 2019). The results of Boudreaux's research (2019) have provided suggestive evidence that economic freedom not only channels individual efforts to productive entrepreneurial activities, but also influences the degree to which individual socio-cognitive resources tend to be mobilized and lead to entrepreneurship and high economic growth. Human development and democratic progress are the main keys in economic freedom, (Miller, 2019). Feldmann (2017) has empirically studied the impact of economic freedom on human capital investment. As a result, there is a strong correlation between the two and economic freedom increases investment in human capital. Hindle et al. (2009) have emphasized that the entrepreneurship development process is shaped by human resources. The capacity of human resources with knowledge, skills, and self-efficiency can lead to entrepreneurial behavior,

(BarNier, 2012, Marvel, 2016). Meanwhile, the results of Anaduaka's research (2014) and Ogunleye, (2017) imply that capacity building and quality of human resources are indispensable in achieving sustainable and quality economic growth in developing countries such as Nigeria, because there is an increase in economic performance for every increase in resource development human.

Based on the results of recent literature studies it can be learnt that human capital and institutional factors encourage entrepreneurial opportunities to achieve higher levels of economic growth (Aparicio, 2016; Bjornskov, 2016; Bosma, 2018; Acs, 2018; Chitsaz, 2019). Research results by Aparicio, 2016 found that informal institutions have a higher impact on entrepreneurial opportunities than formal institutions do. Regarding policy implications, Aparicio's research results also show that it can be possible to obtain economic growth that encourages the right institutions to increase entrepreneurial opportunities. The results of Bosma's research (2018) have examined the extent and how the quality of institutions in encouraging productive entrepreneurship, which in turn is able to encourage economic growth. Furthermore, the results of Bosma's research (2018) show that a quality economic growth model can be significantly improved in that direction, taking into account the quality of institutional and joint entrepreneurial activities. The growth of UMKM entrepreneurship is also increasingly regarded as the main engine of long-term local economic growth than any large foreign company that previously existed (Bell, 2013). Acs' research results (2018) found support for the role of the entrepreneurial ecosystem in economic growth; where the results of the Acs' research (2018) shows that NSE (National Systems of Entrepreneurship) is positively and significantly related to economic growth. Whereas, the results of Bjornskov's research (2016) have found substantial evidence to support the claim that entrepreneurial activities have positive long-term economic consequences in terms of wealth, productivity and economic growth.

Meanwhile, the results of Chitsaz's research, (2019) have used two types of human and social capital to study entrepreneurship; in which to evaluate social capital communicative, structural and cognitive dimensions are used. Meanwhile, to investigate the human capital focus knowledge, skills and self-efficacy dimensions are used. According to Chitsaz (2019), entrepreneurship development is a complex, long-term, and comprehensive procedure with a major role in developing the country's economy. The results of Chitsaz's research (2019) show a significant influence of the dimensions of human and social capital on entrepreneurial activities. Furthermore, Ehrlich, (2017) has modeled investments in Entrepreneurial Human Capital (EHC), which are allocated in commercial and innovative industry knowledge. The results of Ehrlich's research (2017) have specifically found that human capital drives economic growth. Ehrlich's (2017) research model shows that, institutional factors that support the free market for goods, ideas and higher educational attainments from employers and workers are able to increase edogenous economic growth by increasing investment efficiency in the EHC rather than exclusively on their own.

Furthermore, Vide (2016) has explored State competitiveness and entrepreneurship as drivers of economic growth. Meanwhile, the results of Boudreaux's research (2019) found three things: (1) entrepreneurship encourages economic growth, but not in developing countries; (2) the institutional environment of a country as measured by Entrepreneurial Framework Conditions (EFCs) contributes to economic growth in developed countries, but not in developing countries; (3) entrepreneurship driven by opportunities encourages economic growth in developed countries, while entrepreneurship driven by needs impedes economic growth in developing countries. However, all sources of literature mentioned above are still only partially explaining about the human capital, social capital, institutional economics and entrepreneurship roles on economic growth. In this article the empirical disposition and basic theory are combined into an original theoretical basis from R.M. Solow (1956) and J.A. Schumpeter (Elliott, 2017), as well as examined by the path analysis model approach, so that both the theoretical basis and the method approach of this article are more comprehensive. In addition, the novelty critical disposition of this article is that a more representative dimension of measurement is used by utilizing the Gini ratio index, which is generally the basic concept familiar to the reader. Meanwhile, empirical data sources were obtained with various disciplinary approaches: socio-economic-cultural and institutional.

3. Research method

This article is the result of an empirical study that was examined using a descriptive-analytic-quantitative research method using the correlational form of recursive model path analysis. Main data sources are used as primary data and secondary data is used as supplementary data. Quantitative data material was obtained by doing field survey on 125 respondents of entrepreneurial household samples which were taken responsively using simple random sampling technique. Quantitative and qualitative empirical data material in this article were collected with various disciplinary approaches, namely economic-sociology, economic-geographical, economic-cultural and institutional economics. Meanwhile, for interpreting the data obtained, the basic concepts of the approach of economic freedom of local wisdom which are humanist, and economic-social-cultural, especially; sociology economics, informal economics, institutional economics, political economics, as well as cultural economics and geographical gravity economics are preferable to use. In theoretical and methodological concepts, this research method is a better integration research method, because it is a method of integration of related and broader various disciplines in socio-economic related fields, as well as integration of the original theoretical approaches to economic growth in R.M. Solow (1956) and the original theory of economic development of J.A. Schumpeter (Elliott, 2017).

The measurement dimension of all variables in this research is used to measure the modified model dimensions of the Gini ratio or Gini Index (GI). The argument is that the general basic formula of IG values is simple, useful and widely known. The formula is as follows:

$$IGx = 1 - \sum_{i=1}^{n} f_i \, (Y_i - Y_{i-1})$$

Where; IGx (the index value of the variable Xn used); fi is the percentage (%) of variable income of the i-class entrepreneurship household group; Yi is the cumulative percentage (%) of income or expenses in the i-class entrepreneurship household. Thus, some of the main Xn variables referred to and used in this research article are measured by Human Capital Index (HCI), Social Capital Index (SCI), Social Entrepreneur Index (SEI), Intitutional Economic Index (IEI), Entrepreneurship Competitiveness Index (ECI), and Quality Economic Growth (QEG) dimensions. Furthermore, the final value of the magnitude of the variable is between zero to one, according to the standard value on the original Gini index mentioned.

After knowing a number of variables that are used in the path analysis model, then it must first be arranged a structural equation model to find out the value of the path analysis coefficient. The purpose of this path analysis method is to trace the real role of the main explanatory variables namely human capital and social capital exogenous variables towards endogenous variables of economic growth quality, both directly and indirectly through variables of economic institutions and entrepreneurship competitiveness and their total influence. Meanwhile, the meaning of the form of the structure of the reconciliation system in question is the relationship and the direction of the path between the exogenous variables to the endogenous variables, so that they are easier to understand. Meanwhile, the form of the structural path analysis system equation model referred to is arranged as follows:

$$Y1 = \rho_{Y1.}X_1 + \rho_{Y1.}X_2 + \rho_{Y1.}X_3 + \mathcal{E}_1 \; \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots \quad (1)$$

$$Y2 = \rho_{Y2.}X_1 + \rho_{Y2.}X_2 + \rho_{Y2.}Y_1 + \mathcal{E}_2 \; \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots \quad (2)$$

$$Z = \rho_{Z.}X_1 + \rho_{Z.}X_2 + \rho_{Z.}Y_2 + \mathcal{E}_3 \; \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots \quad (3)$$

$$Z = \rho_{Z.}X_1 + \rho_{Z.}X_2 + \rho_{Z.}Y_1 + \mathcal{E}_4 \; \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots \quad (4)$$

Meanwhile, the path Figure 1 form for the path analysis equation model of the dual path system referred to in the article of this research is as follows:
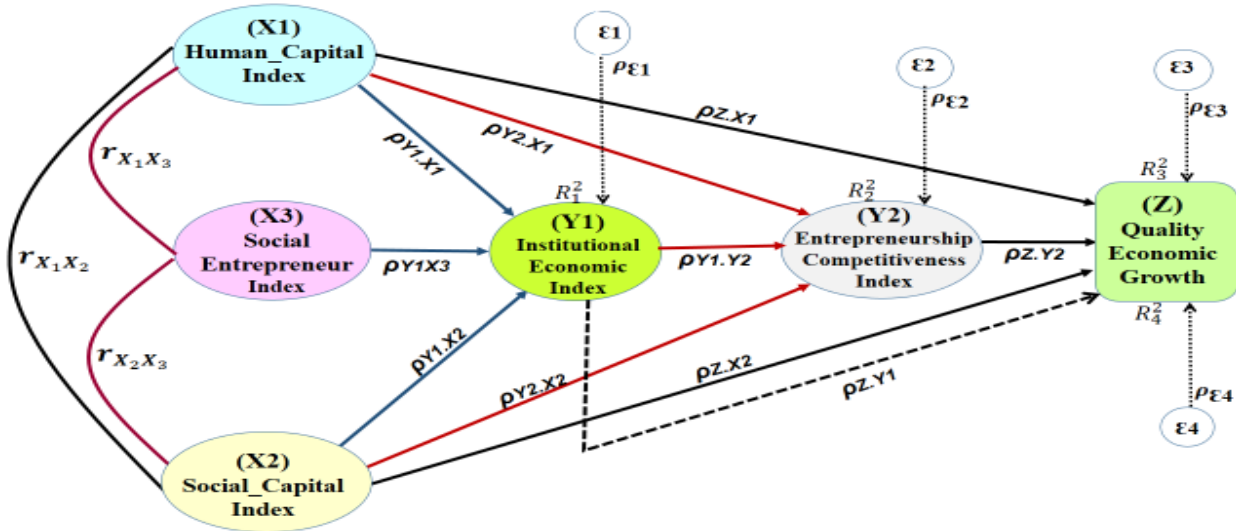
Figure 1. Correlational path analysis model of dual path system

The theoretical basic concept built on the framework of this path analysis model in Figure-1, is an amalgamation of the two basic concepts of the original theory of modern economic growth of The New Growth Theory R.M. Solow (1956) and The Theory of Economic Development of Joseph A. Schumpeter (Elliott, 2017). The keywords of Solow's original theory of economic growth (1956) were mainly explained from the factors of increasing human capital capacity and internal institutional factors. Whereas, the key factors in Joseph A. Schumpeter's original theory of economic development (Elliott, 2017) were mainly explained by external institutional and entrepreneurial factors. Furthermore, the model value of parameter values in the form of path analysis can be formed and generated from the correlation values and standard regression coefficients, so that the path coefficient values have a standardized quantity value. Furthermore, based on the path analysis Figure in Figure-1 above, it can be clearly described the direction and magnitude of the value of the path analysis coefficient, both direct influence, indirect influence and total influence. Where, the value of the highest total influence of the exogenous variables on endogenous variables is considered as the most important, dominant, core and strong factor contributing to quality economic growth.

4. Results

The results of the research from the four structural equation form models of path analysis regression above (model: 1-4), the complete results can be seen in Table 1. Based on Table-1 it appears that the value of the standardized coefficients of the regression will be interpreted and examined further in this article. Next, the standard regression coefficient values in Table-1 together with the partial correlation coefficient values in Table-3 are used to form the path analysis coefficient results in Figure-2 and in Table-4. Meanwhile, the value of the results of the research in Table-2 is the value reflected from the model used to determine the total strength of the model. Based on the results in Table-2 it can be seen that the strength of the model proposed in the path analysis is good and strong. The argument, because based on the coefficients reflected in Table-2, it is known that the R-multiple value is above 80%, and the average R-square value is greater than 70%, and the R-square adjusted value is close to the R-square value, then the model is declared good, strong and credible. Then, after the model is declared good, the results of the research in Table-1 and Table-2 can be employed to build the path analysis model as referred to in Figure-2 and Table-4. In addition, the results of the regression research in Table-1 and Table-2 are also known to be consistent, and the results of the research in Table-2 and Table-3 are also consistent with the correlation value, so that the results of this research can be stated consistent and getting better and credible.

Table 1. Research results from standardized standardized regression coefficients for structural equation path analysis

Model		Unstandardized Coefficients		Standardized Coefficients	T-statistics	Significance
		B	Std. Error	Beta		
1	(Constant)	.180	.023		7.934	.000
	Human_Capital Index	.391	.046	.483	8.516	.000
	Social_Capital Index	.280	.080	.315	3.492	.001
	Social_Entrepreneur Index	.164	.073	.195	2.237	.027
2	(Constant)	-.131	.033		-3.999	.000
	Human_Capital Index	.215	.068	.216	3.180	.002
	Sosial_Capital Index	.193	.073	.176	2.635	.010
	Institutional_Economic Index	.685	.104	.556	6.582	.000
3	(Constant)	.025	.029		.877	.382
	Human_Capital Index	.410	.073	.397	5.645	.000
	Social_Capital Index	.122	.077	.108	1.593	.114
	Entrepreneurship_Competitiveness Index	.444	.086	.430	5.155	.000
4	(Constant)	-.045	.039		-1.162	.248
	Human_Capital Index	.481	.080	.466	6.029	.000
	Sosial_Capital Index	.182	.086	.161	2.117	.036
	Institutional_Economic Index	.366	.123	.287	2.986	.003
a) Model-1: Dependent Variable: Institutional_Economic Index						
b) Model-2: Dependent Variable: Entrepreneurship_Competitiveness Index						
c) Model-3: Dependent Variable: Quality Economic_Growth						
d) Model-4: Dependent Variable: Quality Economic_Growth						

Source: processed primary data

Based on Table 1, the research results from structural equations in Model-1, Model-2 and Model-4, all exogenous variables that are used have are positive influence on endogenous variables and significant at confidence levels above 95% or at the level of 5% significance level. That is, the model is theoretically good and acceptable. Meanwhile, in Model-3 it appears that the exogenous variables of human capital and entrepreneurship still have positive and significant influence on the 99% confidence level of the endogenous variables of quality economic growth. Meanwhile, the conditions for exogenous social capital variables in Model-3 appear to have a positive and not significant influence on quality economic growth. However, if we look back at Model-4, when the social capital variable is moderated by economic institutional variables, its role remains positive and becomes significant again towards quality economic growth. This shows the meaning that the role of the quality of community economic institutions is quite successful and needed in regulating social order entrepreneurial behavior of the local community to encourage high-quality, sustainable and sustainable economic growth in the region. Meanwhile, the significance value of constants in Model-3 and Model-4 is not significant, because the research model in Model-3 and Model-4 is a conditional model (see Table 2).

Table 2. Results of determinant analysis of the path analysis structural model

| Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.845a	.714	.707	.110068	.714	100.713	3	121	.000	1.486
2	.862a	.743	.737	.128573	.743	116.530	3	121	.000	1.975
3	.840a	.706	.699	.142112	.706	96.852	3	121	.000	2.045
4	.816a	.666	.658	.151460	.666	80.441	3	121	.000	2.255
Model-1: a. Predictors: (Constant), Human_capital, Social_capital, & Social_entrepreneur b. Dependent Variable: Institutional										
Model-2: a. Predictors: (Constant), Human_capital, Social_capital, & Instituional b. Dependent Variable: Entrepreneurship										
Model-3: a. Predictors: (Constant), Human_capital, Social_capital, & Entrepreneurship b. Dependent Variable: Economic_Growth										
Model-4: a. Predictors: (Constant), Human_capital, social_capital, & Instituional b. Dependent Variable: Economic_Growth										

Source: processed primary data

If seen from the correlation values determined by R-muliple in Table-2 and partial correlation in Table 3, the results of the research appear to be consistent; there is a positive and strong correlation between exogenous variables and endogenous variables used in this analysis, both determinant and partial. In Table-3, it appears that there is a positive partial correlation and the strongest is the correlation between the entrepreneurship and the institution that is equal to 84.10%. The value of the second largest correlation correlates between social capital and social entrepreneur, which is 83.0%. However, the association of social entrepreneur factors with other factors is weak and has been detected when during the experimental model, which is known that the influence is not significant on economic growth, so that the social entrepreneurial variables are not included further in the next stage of the analysis model selection. Meanwhile, there is a strong partial correlation between institutional factors with entrepreneurship that can be felt that the two are interrelated to develop; where institutions that occur both externally and externally will be endeavored to encourage stronger entrepreneurship and vice versa, the productive entrepreneurship will further strengthen the quality of existing institutions.

Table 3. Value of partial correlation of Karl Pearson product moment matrix

Vaiable	Economic Growth	Entrepreneurship Competitiveness	Institution Economic	Human Capital	Social Capital	Social Entrepreneur
Economic Growth	1	0.788	0.746	0.759	0.607	
Entrepreneurship Competitivness	0.788	1	0.841	0.688	0.713	
Institution Economic	0.746	0.841	1	0.733	0.723	0.679
Human Capital	0.759	0.688	0.733	1	0.510	0.460
Social Capital	0.607	0.713	0.723	0.510	1	0.830
Social Entrepreneur			0.679	0.460	0.830	1

Source: processed primary data

Based on the values in Table-1 and Table-3, the path analysis Figure can be constructed as in Figure 2. Furthermore, based on the values in the Figure-2, it can also produce path analysis coefficient values as shown in Table-4. In Figure-2, it can be seen that the beginning of the largest arrow indicates the strength of the role of the exogenous variable against the endogenous variable. Meanwhile, the values of the path analysis coefficient quantities in Table-4 show the magnitude of the direct influence, indirect influence and the total influence of each exogenous variable on endogenous variables of high-quality and sustainable economic growth in the regions.
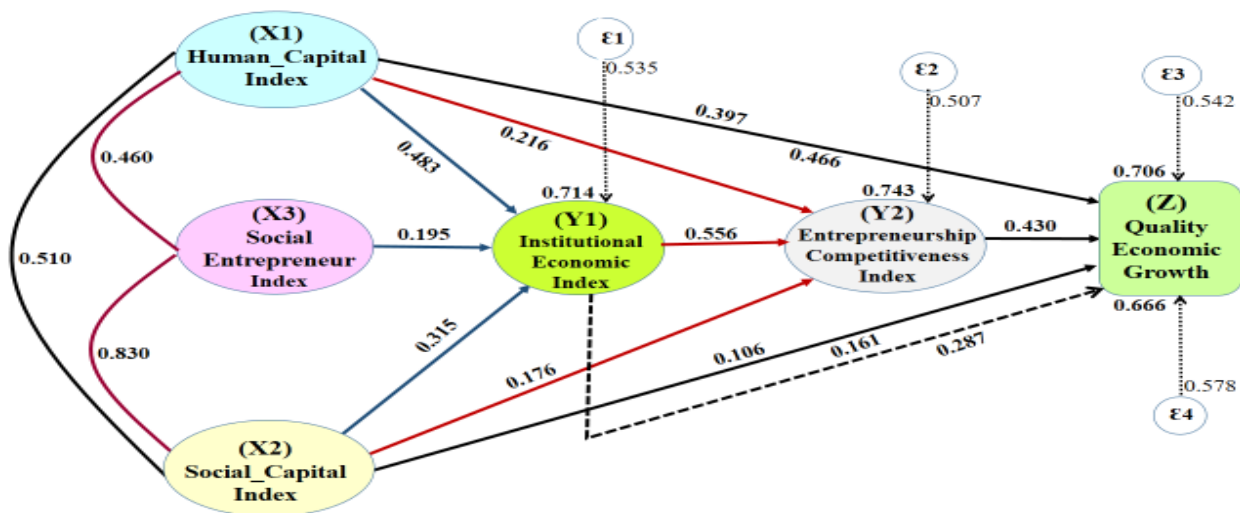
Figure 2. The results of the path analysis coefficient values from the correlational model, form a dual path system

The values of the results of the path analysis research in Table 4 are the results of research built based on the results of the research in Table-1, Table-3 and the coefficient values in the form of Figure-2 above. Based on the value of the path coefficient in Table-4, it can be seen the value of the influence of exogenous variables in total by 87.5%, direct displacement of 51.2% and indirect influence of 36.3% on endogenous variables of economic growth in the model on the path Figure-2. In Table-4, it appears that the greatest total major influence is obtained from the human capital variable, which is 32.9%. These results prove the author's statement above, that human capital is the first and foremost key in promoting quality and sustainable regional economic growth in Indonesia. The argument, because each arrow in the path of path analysis is the first largest begins from the contribution of human capital factors both direct influence and total influence is the first largest total. The magnitude of the influence of total human capital on economic growth is 32.9% which consists of a direct influence of 21.7% and an indirect influence of 11.2%, and more interesting is a direct influence greater than indirect. Likewise the entrepreneurial factor is able to provide a second contribution in total to economic growth, which is 26.2% consisting of a direct influence of 18.5% and an indirect influence of 7.7%, and interestingly the same, its direct influence on growth greater economy. This empirical fact shows that the factors of human capital and entrepreneurship are the main determinants in driving quality, high and sustainable economic growth. However, these two main factors still gain competition from institutional and social capital factors.

Table 4. Result of direct influence, indirect influrnce, and total influence on the quality of economic growth

Vaiable	Direct influence	Indirect influence					Total Influence
		Human Capital	Social Capital	Institutional	Entrepreneurship	Sub Total	
Human Capital	0.217		0.033	0.036	0.043	0.112	0.329
Social Capital	0.026	0.033		0.014	0.008	0.055	0.081
Institutional	0.084	0.036	0.014		0.069	0.119	0.203
Entrepreneurship	0.185	0.043	0.008	0.069		0.077	0.262
Total	**0.512**					**0.363**	**0.875**

Source: processed primary data

Furthermore, the sequence of the next total influence on economic growth is the third economic institutional factor of 20.3%; and the fourth or the last factor from social capital, which is 8.1%. Meanwhile, the magnitude of the influence of institutional factors and social capital factors actually the value of the contribution seems to be greater indirectly on economic growth than the direct influence. This shows that the facts of the phenomenon of the results of the above research strengthen the arguments of the two main factors of human capital and entrepreneurship, so that this fact phenomenon is more interesting to be further discussed in the next sub-topic.

5. Discussion

Based on the results of empirical research in figure-2 and table-4, we have found directly and indirectly, in terms of microeconomics, with the capacity and quality of human capital possessed, it has shown morale, motivation, better creativity and innovation, thereby increasing the productivity potential of workers as well as increasing their and family's income. Furthermore, in terms of macroeconomics, human capital which has the potential for productivity in all these entrepreneurial businesses has had a positive impact in increasing economic quality growth. That is, the basic theory of economic growth R.M. Solow, which states that human capital has a positive impact on economic growth empirically is still proven to be true. Likewise empirically for Schumpeter's theory of economic development which states that entrepreneurship must have a positive influence in society such as economic growth is also true. Thus, the results of this empirical research still support the original theory of *The New Growth Theory* of R.M. Solow and support the original *The Theory of Economic Development* of J.A. Schumpeter. Likewise, through Model-4 it has been proven that the role of existing institutions both from the internal side (RM Solow) and the external side (JA Schumpeter) has been proven to significantly encourage high

quality and high economic growth, and has strengthened the human capital and social capital factors in encourage quality and sustainable economic growth.

A very important and new thing from this article is that both human capital and entrepreneurship have been empirically proven to have a positive and strong and significant correlation in driving quality economic growth in Indonesia. Thus, the results of this research do not fully support the results of previous research conducted by (Afzal, 2010; and Pelinescu, 2015). It is possible that the previous research was conducted in a micro-scale with very narrow data and measurement dimensions. If human capital is only measured in one rural area and only based on one dimension of education level with a small sample, human capital does not always have a positive influence and can even have a negative influence (Prasetyo, 1998). However, the results of this latest empirical research support research conducted by (Cohen, 2007; Estrin, 2016, Ehrlich, 2017; Ali, 2018; Chitsaz, 2019) which confirms that human capital and entrepreneurship have a positive and strong influence on a country's economic growth. Meanwhile, on the other hand, if Indonesia is still included in a middle or low income country, this research also does not fully support previous research conducted by Doran (2018) and Baudreaux (2019) which states that entrepreneurship only has positive influence and significant on economic growth for high-income countries and not on middle and low-income countries. However, it is also realized that we as researchers cannot provide further and more powerful documentation, because this level of research is empirical research which is limited to the case of one country in Indonesia and not to compare to high, middle and low income countries.

In Figure 2 we have also examined the role of human capital in influencing economic institutions and subsequently these institutions are able to encourage competitiveness of productive entrepreneurship and encourage economic growth. In addition, we also examined how the quality of institutions in encouraging productive entrepreneurship competitiveness, which in turn encourages economic growth. The results of our research have obtained better estimation values about the role of human capital in encouraging the formation of new institutions. Furthermore, these institutions encourage competitiveness of productive entrepreneurship and better economic growth. That is, the results of our research support the results of previous research conducted by Bosma, (2017) even though the facts are slightly different. The research results in this article are in fact explicitly the same; having considered entrepreneurial channels through institutional quality in influencing economic growth. The difference is, in this research the importance of the role of human capital both directly and indirectly and the total role is still large, even though the institutional role of the contribution of human capital to economic growth has strengthened. In this article, through the entrepreneurial channel research model whose role has been shown to be reduced to economic growth is merely a factor of social capital.

However, the fact (in Model-4) is the role and function of the correlation of the quality of economic institutions increasingly able to strengthen the role of human capital and social capital in driving quality and sustainable economic growth significantly. Meanwhile, in Bosma's research results (2017) the role of human capital has been proven to be reduced. Thus, it can be reiterated that what is very important in encouraging quality economic growth, staying high and sustainable in Indonesia is the quality factor and the capacity of human capital as the first key factor, as well as the quality factor and the capacity of human capital and productive entrepreneurship competitiveness as the main factors. Meanwhile, the next very important factor in encouraging and maintaining quality and sustainable economic growth are institutional quality and social capital factors. In other words, there are four main capacity pillars in promoting quality economic growth to remain high and sustainable in Indonesia, namely human resources, entrepreneurship, institutional and social capital capacities. Where high quality, remains high and sustainable economic growth is more driven by factors of human capital and entrepreneurship. Meanwhile, quality and sustainable economic growth is more encouraged and maintained by institutional quality factors and social capital.

Thus, all elements of the Indonesian nation must be self-aware and must have a strong joint commitment to continually strive to build the capacity of human resources to produce quality production outputs and work productivity potentials that continue to improve and be able to have strong competitiveness. To achieve this

desire, of course, a new and more credible, new economic institution (NIE) must be needed, and able to encourage increased economic freedom. Based on the data in Table 5, the real conditions of institutions in Indonesia in terms of government integrity, investment freedom, and labor freedom are still repressed. That is, cases of corruption that occurred in Indonesia have had a negative impact especially on government integrity, freedom of investment and freedom of workers who are increasingly depressed, and institutions that are not qualified. This must be overcome immediately so that Government spending can be better utilized, precise and well targeted for the prosperity of all Indonesian people and not for corruption. The results of this research indicate that government spending that has occurred so far, both directly and through bank credit is not able to encourage entrepreneurial and MSMEs growth and economic growth. Government spending so far in Indonesia, besides being corrupted a lot, also only benefits the banking service sector and does not have a positive effect on economic growth, investment, employment opportunities, as well as industry and MSMEs.

Table 5. Index of world economic freedom index in 2019. Tax Burden

World Rank	Regional Rank	Country	Overall Score	Change from 2018	Property Rights	Judicial Effectiveness	Government Integrity	Tax Burden	Government Spending	Fiscal Health	Business Freedom	Labor Freedom	Monetary Freedom	Trade Freedom	Investment Freedom	Financial Freedom
39	5	Jamaica	68.6	-0.5	60.7	49.2	45.0	80.2	76.0	80.0	78.0	73.6	82.6	68.4	80.0	50.0
40	6	Uruguay	68.6	-0.6	68.3	58.9	69.2	77.2	67.5	69.9	74.3	71.9	72.9	78.6	85.0	30.0
41	20	Malta	68.6	0.1	69.8	50.4	50.3	64.2	56.1	94.5	67.1	61.3	78.2	86.0	85.0	60.0
42	21	Romania	68.6	-0.8	66.7	51.9	39.8	89.7	69.0	89.3	63.1	64.5	82.7	86.0	70.0	50.0
43	10	Thailand	68.3	1.2	53.7	45.9	36.4	81.3	85.8	96.5	82.5	63.9	75.2	83.0	55.0	60.0
44	22	Cyprus	68.1	0.3	73.1	48.1	43.7	74.9	55.2	80.3	76.9	59.5	84.0	86.0	75.0	60.0
45	7	Peru	67.8	-0.9	56.1	34.0	31.8	80.6	86.1	88.5	67.8	63.5	83.9	86.4	75.0	60.0
46	23	Poland	67.8	-0.7	62.3	44.0	49.8	74.9	48.8	86.4	65.4	63.9	82.1	86.0	80.0	70.0
47	24	Armenia	67.7	-1.0	57.2	46.3	38.6	84.7	79.0	53.0	78.3	71.4	77.8	80.8	75.0	70.0
48	25	Belgium	67.3	-0.2	81.3	61.6	72.5	47.1	15.2	73.4	78.1	61.0	76.1	86.0	85.0	70.0
49	8	Colombia	67.3	-1.6	59.2	34.3	33.5	74.3	75.0	79.2	71.4	78.5	75.6	76.0	80.0	70.0
50	9	Panama	67.2	0.2	60.4	30.1	34.1	85.0	85.3	91.3	73.6	43.4	79.4	79.2	75.0	70.0
51	26	Kosovo	67.0	0.4	57.2	53.5	44.7	92.5	77.7	96.0	73.8	64.9	78.3	70.8	65.0	30.0
52	27	Albania	66.5	2.0	54.8	30.6	40.4	86.3	73.9	80.6	69.3	52.7	81.5	87.8	70.0	70.0
53	4	Jordan	66.5	1.6	58.4	52.6	50.3	91.4	73.4	60.6	61.8	52.7	85.0	81.4	70.0	60.0
54	5	Bahrain	66.4	-1.3	63.5	50.7	53.6	99.7	62.7	3.7	71.4	71.1	81.6	83.8	75.0	80.0
55	10	St. Vincent and The Grenadines	65.8	-1.9	36.5	63.8	50.5	71.2	74.3	85.0	76.5	73.5	82.2	66.6	70.0	40.0
56	11	Indonesia	65.8	1.6	52.2	53.5	39.5	83.7	91.4	88.1	69.3	49.3	77.4	79.8	45.0	60.0

Note: Limitation of Economic Freedom Score: 80-100 (Free); 70-79.9 (Mostly Free); 60-69.9 (Moderately Free); 50-59.9 (Mostly Unfree) and 0-49.9 (Repressed).

Source: Miller, T. (2019)

The score for the index of ranking of world economic freedom for Indonesia in 2019 is 65.8 and is in 11 regional ranks and ranks 56th in the world of 180 countries measured. Although there is a slight increase of 1.6 points from that of the 2018, it is still considered moderately free, and it is still far from being free. The highest index value is obtained from Government spending (91.4), and the lowest score of 39.5 actually occurs in the Government integrity sector and is classified repressed; and in Indonesia there are still three sectors that are still

classified as repressed namely government integrity (39.5), investment freedom (45.0) and labor freedom (49.3). Economic freedom that is expected to encourage the quality of human capital, economic institutions and entrepreneurship in Indonesia has not yet occurred. In addition, even though fiscal health can be said to be good, there is a heavy tax burden and coupled with very high bank loan interest rates, and rigid banking services often become a burden and make it difficult for new investment and entrepreneurship to grow in Indonesia. Thus, the existence of credible new institutional quality in every line of society and sectors that have high and strong integrityis highly necessary. Based on the values in Table-5, it can be interpreted that it is urgently needed to increase the integrity and capacity of human capital investment, especially in terms of the human character of all elements of the nation in Indonesia. With the increasing integrity, capacity and quality of the character of Indonesian human resources, there will also be increased economic freedom in terms of labor, investment and trust in the government and vice versa. Thus, the issue of investment in human capital or capacity building and quality of human resources in Indonesia is a must do job and cannot be negotiable and replaced again.

The development policy of increasing human capital investment in Indonesia is very urgent to be carried out immediately and is always be improved. If human capital capacity building is getting better, then economic freedom will also be better and vice versa. The better social benefits of economic freedom will be better able to help reduce unemployment, poverty and inequality problems. Countries with higher levels of economic freedom with index values above 80.6 such as Hong Kong, Singapore, New Zealand, Switzerland and Australia, they have been able to enjoy a higher level of development of overall human capital capacity. Therefore, the policy of the Indonesian government must be immediately directed to further improve literacy, education, and economic literacy of its citizens in a higher standard of living for all citizens and not just its officials. Because, the higher capacity and quality of human capital the higher the economic freedom and the sooner of achieving the prosperity of the State stated in the fift principle of Pancasila. If a joint policy and commitment to build the capacity building and quality of the Indonesian human resources cannot be done immediately, then the goal of achieving a developed country in 2045 supported by the golden generation of Indonesia will be threatened with failure and only a mere dream.

Conclusion

In this article, we have discussed four very important pillars for regional economic development in Indonesia through high, quality, and sustainable economic growth. The four important pillars namely; human capital, social capital, institutional and entrepreneurship. We conclude; firstly, there is a very strong correlation and positive and significant influence between human capital and quality economic growth, so it can be concluded that human capital is the main and first key in encouraging quality, high and sustainable economic growth. Second, entrepreneurship as measured by the dimensions of competitiveness of productive entrepreneurship is a key factor in driving high and sustainable economic growth. Third, the important role of social capital more appears to be prioritized to maintain remains high and sustainable economic growth rather than encourage quality economic growth. Fourth, institutions as measured by the dimensions of the quality of new economic institutions that function as rules of the game or act as facilitators and dynamists have been able to bridge and further strengthen and complex interdependence with factors: human capital, social capital and entrepreneurship for encouraging economic growth quality, hight, and sustainable. Fifth, better economic freedom is very needed to improve the quality of existing institutions, human capital capacity and productive entrepreneurship competitiveness and vice versa. The argument is that human development and democratic progress are the main keys to economic freedom, (Miller, 2019). This article provides policy implications that in order to encourage economic growth that remains high, quality and fundamentally sustainable it must be driven through a policy of capacity building and quality of the four main pillars of development namely human capital, entrepreneurship, institutional and social capital. Furthermore, if the policy is successful, then the achievement of economic growth will be increasingly able to reduce the unemployment, poverty and inequality problems.

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