International Journal of Applied Business and Economic Research
Volume 16, Number 3, 2018, ISSN : 0972-7302
available at http://www.serialsjournals.com

HUMAN CAPITAL AND ECONOMIC GROWTH IN PAPUA PROVINCE OF INDONESIA

Ignatia Martha Hendrati[1] and Dolf Eduard Mitteboga[2]

[1]*Economics Department, Faculty of Economics and Business, University of Pembangunan Nasional "Veteran" Jawa Timur.*

[2]*Institut Pemerintahan Dalam Negeri, Kampus Papua, Jayapura.*

Abstract: As stated in Indonesia law of Regional Autonomy (Law No. 21, 2001), Papua province is a province with specific autonomy. As a specific autonomic region, Papua has to face many problems related with how to increase and push economic growth. Up to now, the economic development still has many challenges and many have to be done. One of major concerns is related to the human resources quality. This study analyzes the relation between human capital quality and economic growth in the Papua province of Indonesia.

The analysis of the study shows that Papua province has not been developed significantly due to some internal problems. There are many constraints inherent in this case. However, if these constraints could be taken care effectively, Papua could grow and develop much better. One of the main obstacles could be identified was related to the quality of human capital and productivity of man power. As these two issues are important, the local government should make them as the priority to overcome.

JEL: 013, 015

Keywords: Economic growth, human capital, Papua Province.

1. INTRODUCTION

The discussion about Papua province's products in regional autonomic era today is very exciting. The hot issues about the people of Papua are such an expression and expectation to be capable of living better and more prosperous. Those wishes and expectations have become their passions to realize since the integration with the Republic of Indonesia. However, since then Papua has not developed very well as what the people expected. The development so far has not been significant enough. The longing for better prosperity of Papua's people is getting more obvious when they realize that Papua island has lucrative natural resources. Therefore, the people expect that the government can manage and process their own natural resources for their prosperity as has been stated in Law No. 21, 2001 on Specific Autonomy of Papua Province. Although it has run for more than ten years, the expected prosperity has not been realized significantly. Even some people said that the specific autonomy of Papua has failed. This failure is due to the fact that many people of Papua have a very low education, less prosperous and bad health although the budget given to Papua is very high. The high budget allocation for Papua province from the government should have made the people of Papua become more prosperous and developed. However, some development indicators showed that there was a gradual improvement but it was not as big as the budget provided. The development performance should have run faster.

Various speculations related to the slow-development of this Province emerge, such as the low quality of human capital. Whereas, in the level of theoretical and applicative point of view, the quality of human capital plays an important role in spurring the economic growth. The higher the quality of human capital, the higher the efficiency and productivity of one country will be. History

has recorded that one country which implements the development paradigm based on human being dimension has been capable of developing even though that country does not have abundant natural resources. Therefore, human capital as the main investment capital has to be managed very well in an effort of increasing the total productivity that includes land and man power. However, unlike the knowledge, land, physical assets or capital might diminish in the long term. Robert M. Solow in his theory emphasizes on the role of knowledge/science and human capital as a capital investment in stimulating economic growth.

Moreover, the very basic fact of the low quality of development is due to the lack of fundamental understanding related to social economic condition of the people in Papua. In line with this problem, this research is aimed at understanding more about some supporting factors and obstacles of the inclusive economic growth in Papua that becomes one of the most dynamic regions and has an important economic position in Indonesia. This study was trying to get a better understanding on what factors which could inhibit Papua's economic growth. It was expected that the regional and municipal government of Papua can increase the regional economic performance by taking into consideration the support and input/suggestion given by this study. This study also tried to analyze the relation between economic growth and human capital. The findings of this study might also act as an input to the central government on how to interact in the efforts to have the economic development in the regional level. In addition, it could become the wider parts of regional planning and development in Indonesia. Finally, this finding result will not only be useful for Papua province but also for other regions in Indonesia which had not maximized their human capital potentials as their cores of regional growth.

2. METHODS

This study uses two basic research designs, they are the exploratory and descriptive research. Exploratory research is used to familiarize the researcher with the research environment by exploring some theories based on the data available so that it can be used to make a framework. Descriptive research is used to understand and explain how an event happens based on the framework arranged. The development of analytical and conceptual framework for growth diagnosis followed Hausmann, Rodrik, and Velasco (2005). The data were gathered from Central Board of Statistics and Ministry of Manpower and Resettlement of the Republic of Indonesia (Data centre, information from the manpower, development research committee).

The analytic study of economic growth in Papua will see the diagnosis of economic growth further in Papua influenced by the quality of human capital. This study will also analyze the obstacles which inhibit the people of Papua and the majority of manpower expected to contribute and gain the benefit from that economic growth. The analysis of economic growth is focused on the ways to increase the growth rate by empowering the human capital who are still trapped in the low-productivity activities or even are completely excluded from the process of economic growth. The investment analysis of human capital will refer to the Theory of Human Capital, which employed basic assumption that said someone could increase his/her income by improving his/her education (Kaufman and Hotchkiss, 1999). As an economical techniques, human capital education is linked with the economic growth (human capital theory). Someone with a higher education level is measured from the length of time she studies. This will make her getting a better job and salary compared with those with lower education level. If salary reflects productivity, then the more people with high education level, the higher the productivity and the national economic outcome will likely grow at a higher level too (Tobing, 2005).

The investment of human capital is believed to provide significant effect on the economy (economic growth) in the long term. Then, the human development indicator used is the education from which the average educational time is taken and a good educational level of primary, secondary, and tertiary to measure the investment of human capital along with her health known from her life's wishes. The framework of this study is shown in Figure 1.

3. PREVIOUS RESEARCHES

A number of studies have been directed to examine the impact of the quality of human capital on the economic

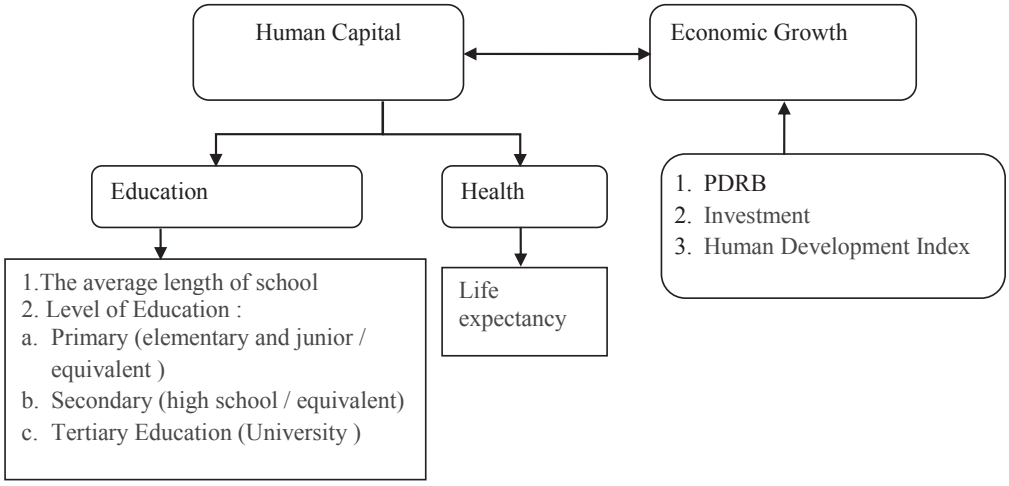


Figure 1: Research Framework
Source: **Wolff (2000)**

growth. The study conducted by Olusegun (2011) found that there was a positive relationship between quality of human capital and economic growth as the enhanced quality of human capital could would increase the rate of economic growth. Given this finding, the government should increase the budget on educational, health sectors and infrastructure which seem to be capable of increasing the capacity or productivity of manpower. The government is also expected to provide job opportunities, makes a better wage system, and ascertains macroeconomic stability so that finally it can improve the economic growth. Alexandru et. al., (2012) showed that the economic growth was very dependant on the quality level of human capital and the quality of human capital is affected by life expectancy, education level, and the value of per-capita income.

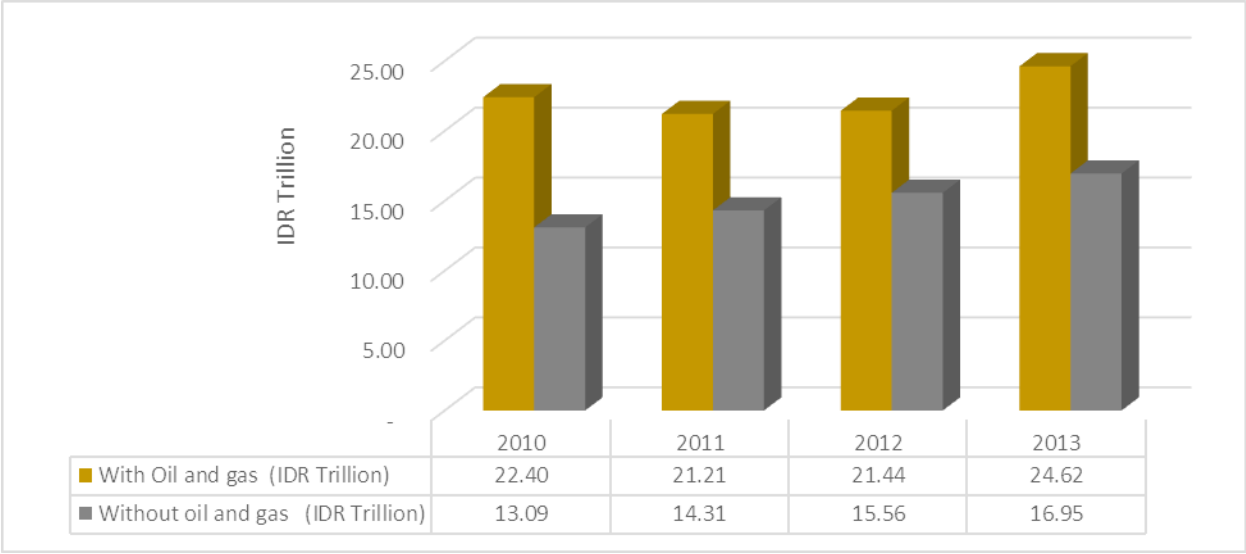
A study by World Bank in cooperation with REDI and the Government of East Java concluded that even though East Java had a stable and moderate growth rate and was unable to reach the economic growth rate back as the level before the economic crisis. The poverty rate was above the national average. The main obstacle for economic is the high proportion of the labor force in East Java who did not have enough skills. Most of them worked in agricultural sector which had the lowest labor productivity. Manufacture industries which firstly became the core of economic growth in East Java has not recovered yet to the level prior to the crisis especially in the efforts to provide adequate job opportunities. That study recommended the idea to support the inclusive growth in East Java. One of them was how to increase the capacity of human capital.

4. RESULTS AND DISCUSSIONS

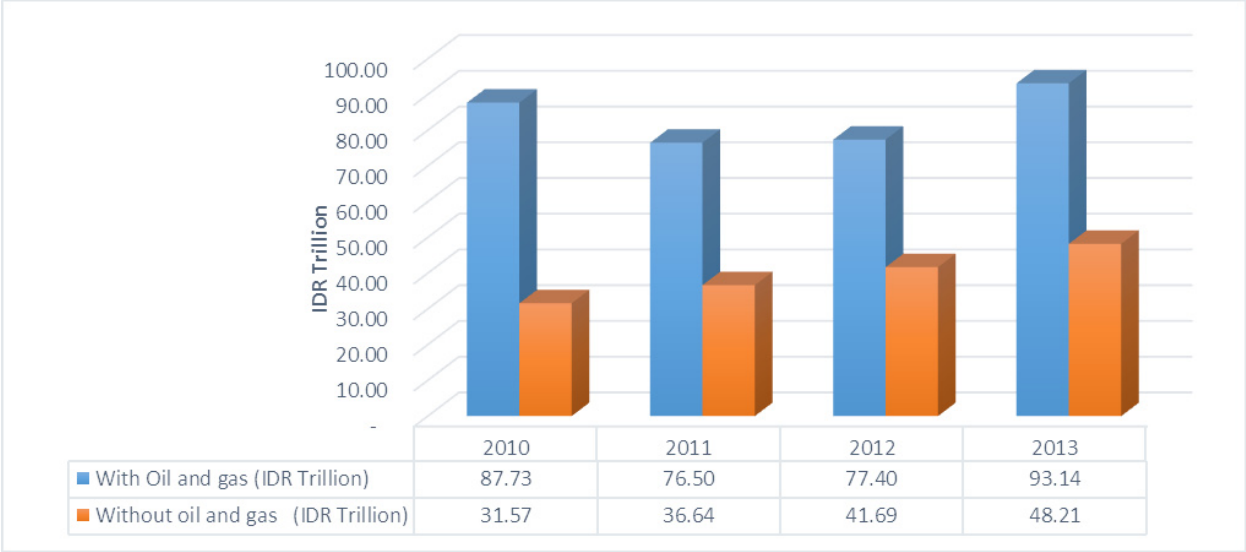
The investment on human capital is as important as that of the physical investment for economic growth in one country (The World Bank, 2008). Some decisive qualitative attributes such as education, skill, health, thinking capability, etc. determine the parameter of individual's ability in accessing productive job field as well as the scope for technology development, increasing labor's productivity, and labour's feedback in national's aggregate with its target for a macro-economic growth.

In Papua Province, the economic level measured based on PDRB has a positive increase trend within the last four years (2010 – 2013). The product value produced by all activities of economic sectors in Papua showed an upward trend. This indicates that Papua is getting more crowded and becoming the target of economic market from various aspects. All of the economic sectors grow slowly, such as agriculture, mining and drilling, processing industry, electricity and clean water, building, hotel and restaurant trading, transportation and communication, financial leasing and business services, and other services. Based on constant price, the value of mining's PDRB in 2013 was recorded at IDR 24.67 trillion, higher

than in 2012 which only IDR21.44 trillion. With such achievement, there is a significant increase in economic growth between 2012 and 2013, i.e., 1.08% in 2012 and 14.84% in 2013. Upward trend is also shown by PDRB based on the current price (with mine) where in 2013 it is recorded as IDR93.136 trillion, increase over 2012 which only IDR77.39 trillion as presented in Figure 2 below.



PDRB at Constant Price



PDRB at Current Price

Figure 2: PDRB Based on Constant Price and Current Price of Papua Province (2010-2013)
Source: **Central Board of Statistics, 2015**

Figure 3, however, shows that the contribution of Papua's PDRB to Indonesia's as a whole PDB is decreasing. In 2010, Papua contributed to 1.66%, but it fell into 1.27% in 2011, and went down to 1.23% in 2013. On the contrary, some provinces recorded and increasing trehnd, such as are DKI Jakarta, East Java, and Central Sulawesi. In the same year, the contribution of DKI Jakarta was 16.28% in 2010, 16.30% in 2011, 16.39% in 2012, and 16.57% in 2013. The same upward trend shown by East Java of 14.70% in 2010, 14.67% in 2011, 14.87% in 2012, and 14.99% in 2013, respectively.

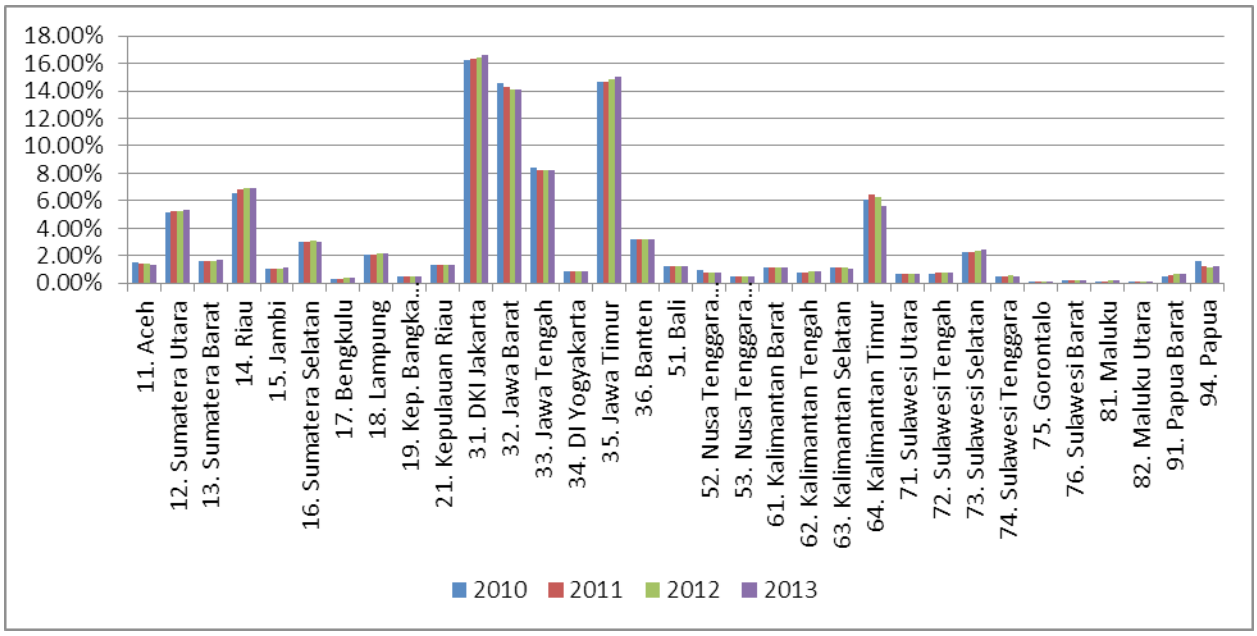


Figure 3: Provinces' PDRB Contribution to National PDB 2010-2013 (%)
Source: **Central Board of Statistics (2015)**

The decline in Papua's economic performance is more likely caused by the quality of the human capital. This phenomenon is quite worrisome considering the fact that low quality of human capital may become one of the obstacles to the labor productivity in Papua. On the other hand, the enhancement of human capital capacity may increase the chance of poor society to access a wider job opportunities, while with a low capacity as they are now, it will hamper all of their chances to get a full benefit of the development. The human capacity itself relies on two main basics, namely achievement and access to education and health care.

In general, the educational attainment indicator in Papua such as the literacy rate and the average years of schooling is lower than national's average. In 2010-2013, the average years of schooling in Papua is 6.66 (2010), 6.69 (2011), 6.87 (2012), and 6.87 (2013), respectively. These numbers are lower than the national's average rate that reaches 8.0. The same goes to the literacy rate, where during that periods, Papua recorded a level of 75.60% (2010), 75.81% (2011), 75.83% (2012), and 75.92% (2013), while the national average rate on the same range of time was 89%.

Most of Papua workers are low-skilled. In 2013, more than half (67.92%) of Papua's workers were only a primary school graduates or even lower, including 21% of the total workers did not attend school or did not finished the primary school. Only about 19.94% of them attended high school. In fact, the proportion of workers with educational background less than primary school has an increasing trend within the last three years as shown in Table 1. Urban areas and younger demographic groups, generally, have more educated workforce compared with those of rural areas and older demographic groups. In urban areas, almost 60% of the workforce was a high school graduate, while it was only 11% in the rural areas.

Table 1
Workforce Based On Educational Level in Papua

No	*Educational Level*	*Urban*	*Rural*	*Total*	*%*
2013					
1	Elementary School	61,717	1,007,148	1,068,865	67.92%
2	Junior High School	49,171	141,770	190,941	12.13%
3	Senior High School	173,231	140,565	313,796	19.94%
Sum		284,119	1,289,483	1,573,602	100.00%
2012					
1	Elementary School	58,338	945,304	1,003,642	67.70%

(*Contd...*)

No	*Educational Level*	*Urban*	*Rural*	*Total*	*%*
2	Junior High School	45,166	135,516	180,682	12.19%
3	Senior High School	164,668	133,587	298,255	20.12%
Sum		268,172	1,214,407	1,482,579	100.00%
2011					
1	Elementary School	55,547	883,677	939,224	65.63%
2	Junior High School	50,257	149,105	199,362	13.93%
3	Senior High School	161,082	131,399	292,481	20.44%
Sum		266,886	1,164,181	1,431,067	100.00%

Source: Data centre, information from the manpower, development research committee, Ministry of Manpower and Resettlement Republic of Indonesia 2015.

Table 2 presents the Comparison of Pure Participation Number of Papua Province and Indonesia. Although the access to primary education in Papua is wide open, the access to secondary education is still low and it becomes a problem in many regencies or municipals. In 2013, the enrollment rate of primary education in Papua was 72.57%, 45.76% for middle-high school, and 36.73% for high school. This trend was in line with the enrollment rate of Indonesia that the participation rate was far beyond the optimum enrollment rate. On a national scale, the APM (enrollment rate) for secondary educational and above is only 54.25%.

Although the difference between the participation number of man and woman can be ignored, the more significant difference can be seen in urban areas or cities and villages. The pure participation number between boy and girl student can be found almost the same in Papua province. The participation number of both female and male students seems to be increasing. However, the participation level of male students at Elementary and Junior High School level is a little bit higher. Meanwhile, the female students has higher participation at the level of Senior High School. In reverse, the level of student participation at the villages is much lower than that of urban areas/cities. This means that most of the poor people live in the villages. In the year 2013 the pure participant level at SMP (Junior High School) level in the villages is about 66% and in urban areas is 74%. Even the significant gap happens at SMA (Senior High School) level. The urban areas have 60% of the participation level and village areas have only 37%.

The low quality of human capital directly or indirectly will influence the productivity of manpower in Papua province which seems to be lower. The productivity of manpower is one competence description of every worker in producing PDRB in one region or area. The higher the productivity of a worker (manpower) the more productive he will be. Based on the statistics released by BPS (in 2015) showed that the productivity of manpower in this province is about IDR 58.37 million/year (2011), IDR 61.36 million/year (2012), and IDR 70.78 million/year (2013). This statistics showed there is a significant increase but this increase is relatively low compared with the national level that reached up IDR 80.59 million/year (Central Board of Statistics, 2013).

Table 3 presents the population who work based on the business field in Papua Provincein the 2013. Mining and excavation was one sector that dominated the establishment of PDRB in Papua. It was reported that this sector contributed PDRB as much as 48.62%. This is due to the existence PT. Freeport located in Tembagapura that produces bronze, gold and silver as the main commodities. Meanwhile, the second biggest contribution is from building sector that contributes about 12.10%, then agricultural sector (11.72%). Meanwhile, the six other sectors that contributed to the establishment of PDRB in Papua are below 10%. However, although mining and excavation sector became the main contributor in the establishment of PDRB, the manpower/human capital employed in this sector was only 1.57%. On the other hand, based on the Data Center and Information of manpower, Development Research Committee and Information The Ministry of Manpower and Transmigration RI (2013), it was sated that there was about 72.90% of the people work in agricultural sector from which the contribution to the establishment of PDRB was only a little. If the subsector of mining without petroleum and gas is eliminated, building sector becomes the highest contributor for the establishment of PDRB (23.29%), then followed by agriculture (22.56%). Meanwhile, the other sectors such as services, hotel, tourism and restaurant, trading, travel and communication, their contributions are 18.73%, 12.99%, and 12.09%.

Table 2
The Comparison of Pure Participation Number of Papua Province and Indonesia Based on the Education Level

Region	*2003*			*2004*			*2005*			*2006*		
	ES	*JHS*	*SHS*	*ES*	*JHS*	*SHS*	*ES*	*JHS*	*SHS*	*ES*	*JHS*	*SHS*
Papua	83.86	47.81	30.11	85.21	47.78	30.39	81.05	44.95	40.49	78.11	47.36	33.36
Indonesia	92.55	63.49	40.56	93.04	65.24	42.96	93.25	65.37	43.50	93.54	66.52	43.77
Region	*2007***			*2008***			*2009***			*2010***		
	ES	*JHS*	*SHS*	*ES*	*JHS*	*SHS*	*ES*	*JHS*	*SHS*	*ES*	*JHS*	*SHS*
Papua	80.94	48.69	35.78	81.76	48.95	35.79	76.09	49.08	35.77	76.22	49.62	36.06
Indonesia	93.78	66.90	44.84	93.99	67.39	44.97	94.37	67.43	45.11	94.76	67.73	45.59
Region	*2011***			*2012*			*2013*					
	ES	*JHS*	*SHS*	*ES*	*JHS*	*SHS*	*ES*	*JHS*	*SHS*			
Papua	69.62	44.43	30.78	70.78	43.61	29.16	72.57	45.76	36.73			
Indonesia	91.07	68.35	48.07	92.54	70.93	51.88	95.59	73.88	54.25			

Source: Central Board of Statistics, 2015.
*ES: Elementary School; JHS: Junior High School; SHS: Senior High School

Table 3
The Population who Work Based on the Business Field in Papua Province (2013)

S.No.	*Business Field (9)*	*Total Manpower (People)*			*Composition of Labour (%)*		
		Urban	*Rural*	*Total*	*Urban*	*Rural*	*Total*
1	Agriculture, forestry, hunting and fishing	33.921	1.157.435	1.191.356	10.07%	89.21%	72.90%
2	Mining and excavation	16.122	9.584	25.706	4.79%	0.74%	1.57%
3	Processing Industry	10.151	12.287	22.438	3.01%	0.95%	1.37%
4	Electricity, gas and water	975	269	1.244	0.29%	0.02%	0.08%
5	Building	24.840	9.822	34.662	7.37%	0.76%	2.12%
6	Big trade, retail, restaurant and hotel	86.279	32.559	118.838	25.61%	2.51%	7.27%
7	Transport, storage and communication	41.086	14.825	55.911	12.20%	1.14%	3.42%
8	Finance, insurance, leasing of buildings, land and services companies	16.809	2.150	18.959	4.99%	0.17%	1.16%
9	Social service	106.667	58.551	165.218	31.67%	4.51%	10.11%
	TOTAL	336.850	1.297.482	1.634.332	100%	100%	100%

Source: Data centre, information from the manpower, development research committee, Ministry of Manpower and Resettlement Republic of Indonesia 2015.

Agriculture sector is also one business which is closely related to informal work. Informality is closely related to the lack of something and poverty. Due to the fact that the income from informal economy tends to be lower than the average of formal economy, social protection and the rights protection in the work place are also low. Agriculture is the last effort of the work opportunity for the poor people. They might not have any qualification to get a job in a more productive sector. Furthermore, the informal work tends to commonly happen between the workers and those of having lower education level. Meanwhile, as it was stated previously that the condition of Papua province showed that the higher the education level, the less possibility of getting involved in informal work. In the year of 2013, 80% of the workers of Junior high school graduates worked informally, compared with 50% of the workers of Senior High school graduates, and 10% of University graduates. Among them, those who haven't got elementary education, less than one out of 10 people have formal work.

Table 4 below shows that the relation illustration between education level and the work status is the higher the level of education, the higher the opportunity to get better job. Besides, those who have higher education they tend to get a better opportunity to find a better job with higher salary.

Table 4
Proportion of Informal Workers Based on Education Level in Papua province and Indonesia (2013)

	*< ES**	*ES*	*JHS*	*/ SHS*	*University/ College***	*Total*
Female	92	93	85.9	45.3	9.3	84.2
Male	91.5	87.4	78.2	48.1	9.2	78.6
Total Papua	91.7	89.9	81.1	47.1	9.3	81
Rural	93.3	92.5	88	58.3	14	87.5
Urban	60.3	53.6	48.3	28.9	4.5	37.4
Total Indonesia	82.4	74	60.4	37.9	11.7	61.3

Source: Data centre, information from the manpower, development research committee, Ministry of Manpower and Resettlement Republic of Indonesia 2015.
Note: * and ** indicate the people whose education level are 'lower' than primary school are those who never go to school or haven't completed their study when this survey was conducted. The people who have higher education, they usually have some kind of diploma I/II/III or title from one university. ES : Elementary School; JHS: Junior High School; SHS: Senior High School.

Private investment expected to push and activate the economy to some sectors of the higher growth has a little proportion in Papua province compared with DKI Jakarta and West Java. As a whole, this condition could affect the number of poor people in this province although there was some decrease of it. In the year 2013, the composition of PDRB (based on its usage) showed that the household consumption (including private franchise) had its proportion as much as 59.08%, investment and export-import: 37.44%, more than 90% from mining product. PT Freeport Indonesia contributed about 48.43%. The small proportion of private investment in Papua and the high level of its dependence to PT. Freeport was one factor of stagnation of capital establishment in this province. One of key efforts to increase productivity and economic modernization is by attracting private investment in Papua.

Table 5
Gross Regional of Domestic Product Based on its use of 2013

PDRB component Usage	*Current Price*		*Constant Price*	
	Billion Rp	*%*	*Billion Rp*	*%*
Household Consumption	53.461,01	57.40%	19.864,70	80.70%
Private Non-Profit Institutions	1.567,62	1.68%	663,85	2.70%
Government Consumption	24.292,46	26.08%	5.772,93	23.45%
Total gross capital investment	34.869,11	37.44%	11.417,30	46.38%
Stock changes	(11.334,66)	–12.17%	(8.662,35)	–35.19%
Export	45.104,66	48.43%	12.397,01	50.36%
Reduced imports	54.823,60	58.86%	16.836,80	68.40%
PDRB	93.136,60	100.00%	24.616,65	100.00%

Source: Central Board of Statistics (2015).

Furthermore, most of the people in Papua work in agricultural sector. However, this sector has the lowest productivity of manpower compared with the other ones. This made the poor people not be capable of high income to support their family lives. In the year 2013, manpower productivity in agriculture sector was only IDR 8.21 million/year. This was the reverse of manpower productivity from mining and excavating that reached up to IDR 1.407 million/year. Moreover, manpower productivity of secondary and tertiary sector was also much higher compared with agriculture. It was stated that the productivity of building was as much as IDR. 291.48 million/year. Meanwhile finance, insurance and rental business was IDR. 123.37 million/year. The low productivity in agricultural sector made the researcher ask question, why it could happen: 'Why the proportion of manpower concerns with agriculture is much higher but they tend to have the higher level of poverty'. Besides, the poverty level usually has some correlation with the productivity of manpower in agricultural sector. This means that the lower their productivity the higher the poverty level in that region. Therefore, the sustainable productivity and income need to be increased to avoid poverty instead of increasing the work opportunity in agriculture.

The other important employability is the level of health showing an increase during the last 4 years. In the year 2010, the number of live expectation is about 68.60 years and then it increased into 69.13 years in 2013. This showed that there was health status of community in Papua province as it is presented in Figure 5 below:

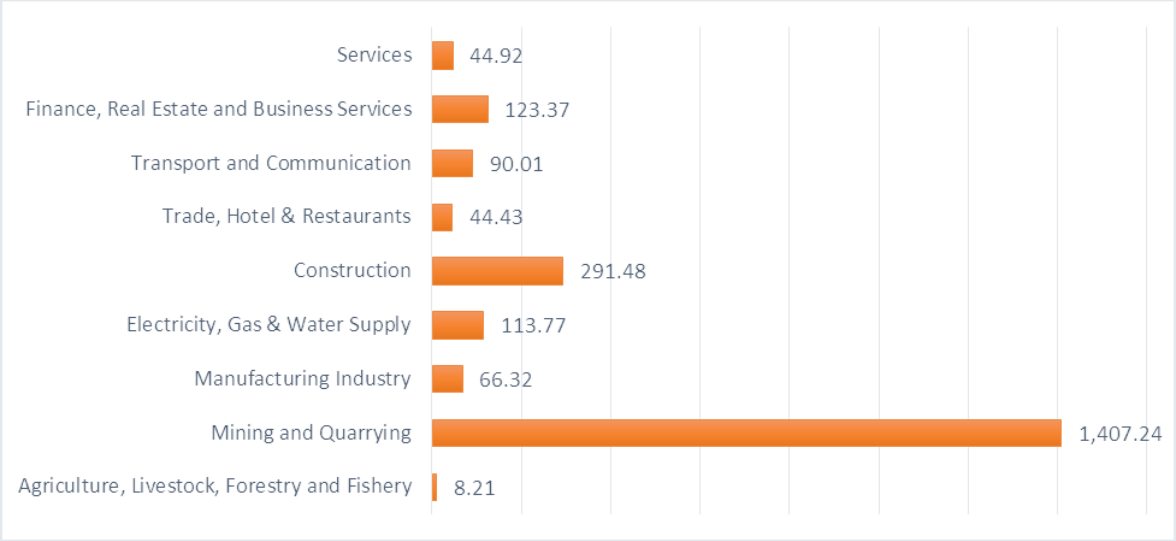


Figure 4: Productivity of Manpower Per Sector in Papua province 2013 (IDR. Million/Year)
Source: **Central Board of Statistics, 2015.**

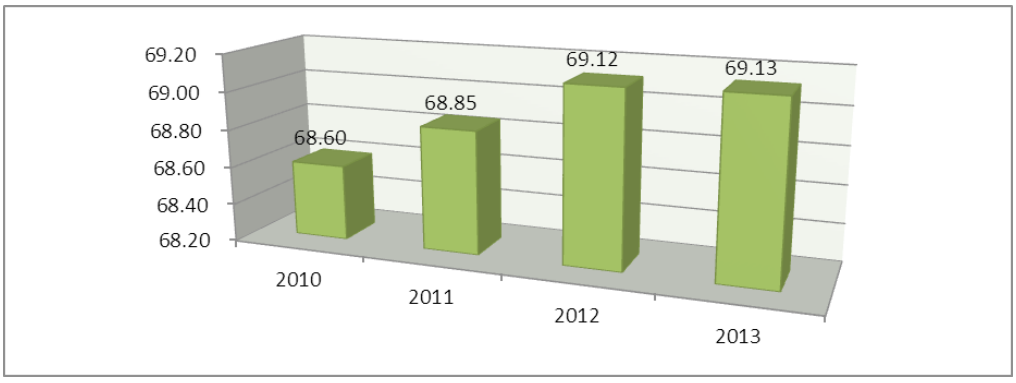


Figure 5: The Number of Live Expectation in Papua Province
Source: **Central Board of Statistics, 2015.**

The low quality of human capital is closely related to the disturbance and poverty which is not only limited with the high percentage but also the disparity among region which is still quite high. Based on the data reported by BPS in the year 2014, the poverty in Papua (and Maluku) was very high. It was said that the percentage of the poor people in Papua and Maluku was about 21,86% with the total number 1.481.380 people/percent. The next percentage of the poor people was Bali and Nusa Tenggara (14.35%), Sumatra (13.03%), and Sulawesi (10.01%). The reverse, the smallest percentage (Hardcore below 10%) was Java island (9.96%) and Kalimantan (6.43%). This was due to the development that was inequitable in all parts of Indonesia. In fact, the development in the eastern parts of Indonesia is lower than that of in the west.

The Rate of Poverty in Papua province is quite high although the total number is getting to decrease. In the year 2010 the total number of poor people was 1.051.367,54 (36.80%) and it decreased in the year 2013 into 944.013,51 (31.13%). In accordance with the region characteristics, the poor people in Papua is concentrated in the villages from which 1.012,57 thousand people or 40.72% of the poor people live in the villages. Meanwhile

Table 6
Percentage of Total Number of Poor People (2014)

Island	*Number of Poor*			*Percentage of Poor (%)*		
	Urban	*Rural*	*Urban+Rural*	*Urban*	*Rural*	*Urban+Rural*
Sumatera	2,008.83	4,061.59	6,070.42	10.35%	14.93%	13.03%
Jawa	6,975.89	8,167.89	15,143.78	8.00%	12.61%	9.96%
Bali dan Nusa Tenggara	600.21	1,404.25	2,004.45	10.89%	16.60%	14.35%
Kalimantan	277.68	695.24	972.92	4.34%	7.96%	6.43%
Sulawesi	325.59	1,531.69	1,857.28	5.19%	12.47%	10.01%
Maluku dan Papua	108.42	1,372.96	1.481.38	5.39%	28.82%	21.86%

Source: Central Board of Statistics, 2015

those of in urban/town areas, there are only 45,41 thousand people or 5.22%. Nowadays the total number of poor people in Papua (2013) was about 1.057,98 thousand people or 31.53%. The rate of poverty in the villages that most of the people work in an agricultural sector is much higher than that of the other regions. As more than 80% the manpower working in agricultural sector live in the villages, most of the poor people also live here in the villages. Although most of the opportunities to work in mining and excavation are in the villages, these two sectors only provide less than 2% out of the total number of manpower available (Table 6). Therefore this condition has not provided more opportunities to work more productively to the people living in the villages. In reverse, most of the work opportunities in some sectors having high productivity such as finance and utilities are found in the city centers. However, some sectors having high productivity only absorb of less than 2% workers. The lack of work in some sectors having high productivity and most of them live in the cities become an obstacle for the poor people living in the villages to find a job that has high productivity and well-paid.

The education level influences much to the people's poverty. More than 50% that the head of family is only graduated from elementary school is poor. Less than that group of people, compared with that of completing their Junior High School (35%), Senior High School and having some kind of vocational training (25%), and less than 10% from that of having higher (university) education.

Based on Human Development Index, it seemed that the development in Papua province has already come to much progress although it is still considered to be the lowest compared to other provinces in Indonesia. It was reported that in 1999, the HDI of Papua was 58.8

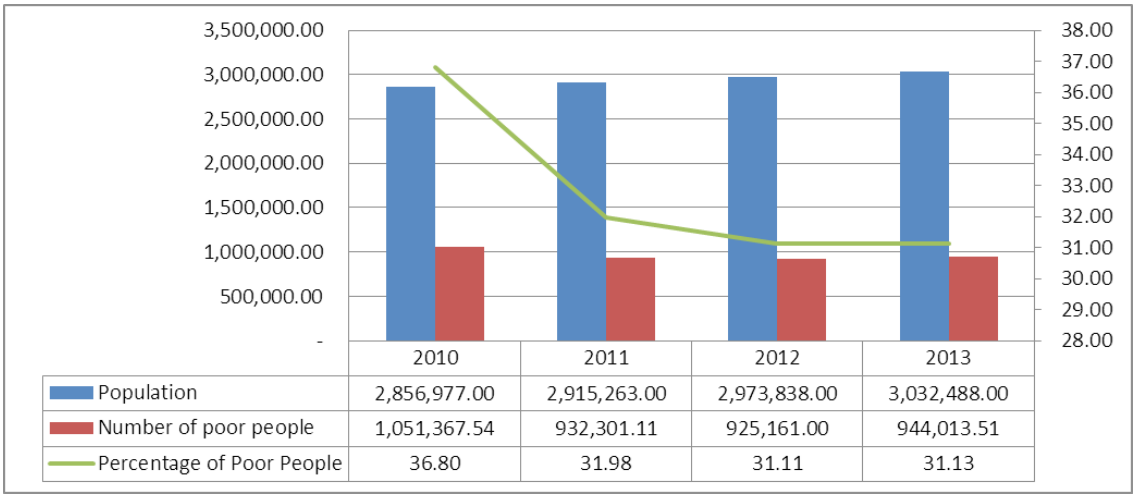


Figure 6: The total number and Composition of Poor People in Papua Province
***Source:* Central Board of Statistics, 2015**

(increased 12.67%), in 2013 became 66.25 (see Figure 7). This increase is quite exciting because in general there was a quality increase or progress of human development in Papua. However if we compare with the 34 other provinces, Papua has the lowest HDI. In the year 2013 the HDI of Papua was 66.25 much lower than DKI Jakarta that had 78.59, the archipelago of Riau (76.56) and Gorontalo (71.77).

The description above showed that the inclusive economic growth in Papua has not been realized due to the low quality of Human capital. Providing the field of productive work needs to be increased if the objective is reduce the rate of poverty. This can be realized if the government provides the field of productive work significantly to all people. To achieve this goal, some strong policy and regulations are required to change the growth style in the past time and to make the economic growth more balance sectorally, regionally and more inclusively. Meanwhile the quality target of human capital can be seen from the average rise length of study, the percentage of the people who are not illiterate, the total number increase of manpower working productively or in efforts to reduce the number poor workers and those who do not work. Moreover, the fast gap of regional economic growth between towns and villages recently, it seems that the target of providing the qualified human capital to create the inclusive economic growth in Papua needs to be realized soon.

5. CONCLUSION

This study elaborates the relationship between human capital and economic growth in Papua province of Indonesia from 2010 to 2013. Papua province has enjoyed the rise trend of PDRB within the last 4 years (2010-2013). However if it is compared with the other provinces, Papua is still left far behind. This could happen because there are still many obstacles in accordance with inclusive growth. In Indonesia, the PDRB contribution of Papua to PDB Indonesia as a whole has decreased but has not performed its composition rise significantly.

Papua province should have been better developed as it was given specific autonomy under the Law number 21 of 2001 it received General Allocation Fund and Special Allocation Fund. Supposedly it can form a high productivity in promoting economic growth. The main factor that impedes the economic growth in Papua is the low quality of human capital in this province. This is reflected by the low level of education of the workers/ manpower (more than 60% of the workers are graduating from elementary school or even lower) and most of the people work in the agriculture sector from which productivity is quite low. This sector cannot provide the workers high salary/income. This condition cannot support their families above the poverty line. On the other hand, the agricultural sector is also a business related to informal work. Meanwhile, informality is closely related to the lack of food and poverty because the income from this sector tends to be lower than the average of the formal economy. Besides, the social and right protection in the workplace is also low.

To overcome the above problems, policy recommendation is government must be focused on improving the quality of human resources. Some ways to improve the quality of human resources are: (1) Broadening and maximizing the non-formal education as an informal training centre to provide the people some opportunity to study and learn especially to those of out of school ages. Those non-formal education centers should provide some special programs for the people who do not have an opportunity to join formal education, such as empowering women program, life skill education, work training and others; (2) Strengthening and expanding vocational schools to provide some specific skills; (3) Maximizing work training centers owned by province government to increase and do some diversification of work skills; (4) Preparing and arranging some competence-standard certification for skillful and professional personnels/workers and last (6) Developing institutions or offices to provide work facilities funded by the government. Here the government takes a role as a bridge to satisfy demand and supply of manpower.

Acknowledgement

The authors thanked to the reviewer of Curtin Post Graduate Students Association (CUPSA) Inaugural Conference for the significant and valuable comment.

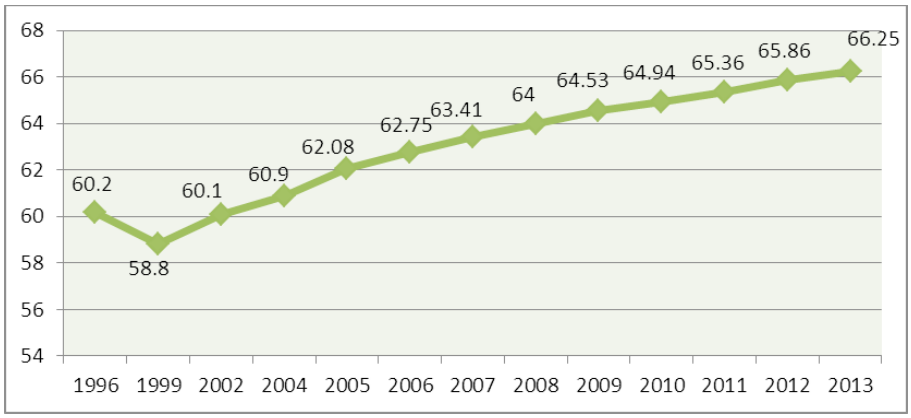


Figure 7: The Development of HDI (Human Development Index) in Papua Province
Source: **Central Board of Statistics, 2015.**

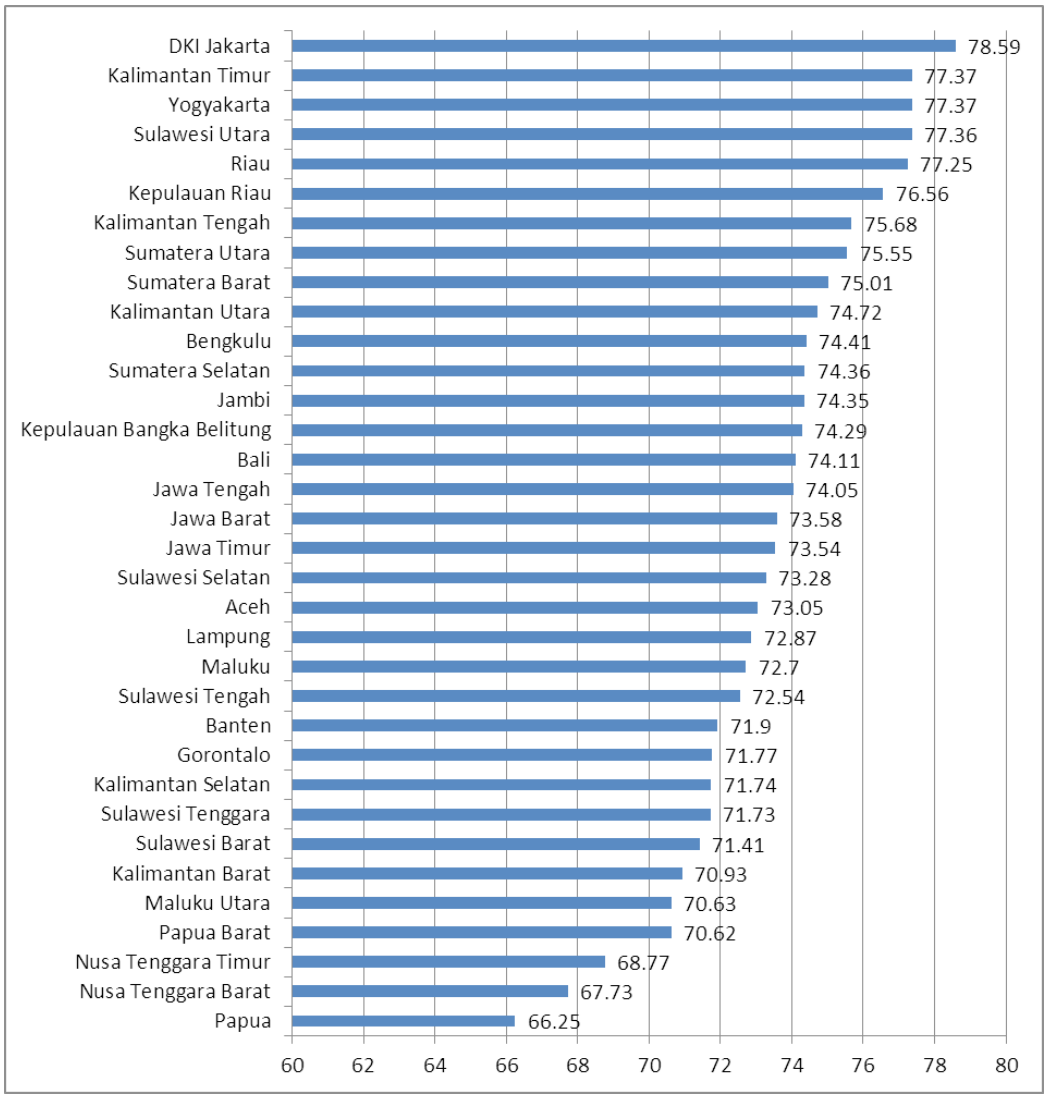


Figure 8: The Development of Human Development Index in Indonesia Based on the Province in the year 2013
Source: **Central Board of Statistics, 2015.**

REFERENCES

Alexandru, V.C., Gabriela, U., & Madalina, M. (2012). Human capital Contribution To Economic Growth. *Journal of Economic-Financial Theory and Practice*. Retrieved from http://economice.ulbsibiu.ro/revista.economica/archive/suplimente/Volume1-2012.pdf

Bank, World, REDI, & Government, E. J.s. P. (2011). Diagnosa Pertumbuhan Ekonomi Jawa Timur: Mengidentifikasi Hambatan-Hambatan Utama Pertumbuhan yang Inklusif di Provinsi Terbesar Kedua di Indonesia. Jakarta.

Kaufman, B.E., & Hotchkiss, J. L. (1999). *The Economics of Labor Markets*. Vol. 5. The Harcourt College Publisher.

Manpower, D.C. a. I.f.t. (2015). Indonesia: Ministry of Manpower and Resettlement of Indonesian's Republic.

Olusegun, R.D. (2011). The Impact of Human Resource Development on Economic Growth in Nigeria: An Empirical Investigation (1902-2008). Social Science Research Network. Lagos State Pollytechnic

Ricardo, Hausmann, Rodrik, D., & Velasco, A. (2005). *Growth Diagnostic*.

Statistic, C.B. o. (2010-2015). http://www.bps.go.id

The Law of Regional Autonomy, 21 C.F.R. (2001).

Tobing, E. (2005). Pendidikan dan Pertumbuhan Ekonomi. Retrieved from http//www. theindonesianinstitute.ore/janeducfile.htm

Wolff. N. Edward. (2000). Human Capital Investment and Economic Growth: Exploring The Cross-country Evidence. Department of Economics, Faculty of Arts and Science, New York University, USA.