

Human Resource Quality and Household Income in North Sulawesi, Indonesia

¹ Paulus Kindangen, ² Tri Oldy Rotinsulu, ³ Sri Murni

^{1,3} Department of Management, Faculty of Economics and Business, Universitas Sam Ratulangi, Manado, Indonesia

² Department of Economics, Faculty of Economics and Business, Universitas Sam Ratulangi, Manado, Indonesia

Abstract: Household income is a very important economic variable to measure purchasing power of household. The higher the household income the higher the purchasing power and, thus, the better is the level of needs fulfilment and the higher the level of economic well being or welfare. This research was conducted to find out the influence of human resource quality on household income. Household income is the total income (in rupiah) of a household in a year. The level of education and entrepreneurship were chosen as proxies of human resource quality; entrepreneurship is then represented by "commitment and perseverance", "initiative and action", as well as "adaptive ability". This research was done in urban areas of North Sulawesi in the cities of Manado, Bitung, Tomohon, and Kotamobagu as well as Tahuna. Tahuna is the capital of Sangihe Archipelago Regency. The sample of this research consists of 340 households in with the heads of households and/or housewives were chosen as respondents. The respondents are the households of various main job: civil servant including teachers, business persons, farmers, and fishermen. The respondents were chosen purposively in order to be able to answer the questions in the questionnaire. Data analysis was conducted using multiple linear regression model. This research finds that education and entrepreneurship have simultaneous-positive influence on household income in North Sulawesi Province of Indonesia. Partially, every independent variable (the proxies), unless commitment and perseverance, has significant-positive influence on household income. This finding gives implication that it is very important to increase the quality of human resources – education and entrepreneurship – to increase income and, thus, economic welfare, of households in the region.

Keywords: Household income, Quality of human resources, Education, Entrepreneurship, Commitment and perseverance, Initiative and action, Adaptive ability

1. Introduction

Income is always an important and interesting economic variable to be discussed and studied since it indicates the capability of a person, a household, or a community to meet various needs for goods and services. The higher the income the better it can satisfy needs or the higher the freedom for making economic choice, and thus, the better is the welfare achieved. Various factors or variables are known to have influence on income. Natural resources, physical capital, labour or human resources, and entrepreneurship are the main factors of income in economic theory as well as management.

Rich natural resources are often mentioned as the very important cause of wealth of nations, but experiences show that the richness of natural resources does not always result in high income or economic welfare. There are many countries and many regions in a country with abundant natural resources showing low income for a long period of time. Indonesia is one of

the countries with abundant natural resources, but after more than 70 years of independence, it is still in the category of lower-middle-income country. Moreover, in macroeconomic view, abundance of labour in Indonesia seems to indicate no positive influence on income. The abundance of labour is seldom seen instead as the reason of the phenomenon of disguised unemployment.

North Sulawesi in Indonesia can be categorized as the province of rich natural resources with fertile soil, rich fishing ground (abundance of fish), beautiful scenery for tourism, as well as rich of mining deposit such as gold. However, there are still poverty problems in the region as shown by the poverty rate of 8.20 percent in September 2016. Natural resources in abundance have not been used optimally to reach high income for the society as a whole.

Developed country of lack natural resources such as Japan is well known as a country reaching high income owing to its high quality human resources. Some other developed countries of rich natural resources are in general well known as developed countries due to the support of good or high quality human resources, especially education and behaviour.

1.1 Problem Statement

Abundance in natural resources should have made North Sulawesi a region of high income. This region, however, is still having more than 8 percent poverty rate and that it has shown slow poverty reduction in several years despite the poverty alleviation programs of the national as well as regional governments.

A more strategic endeavour seems important to be implemented in order to increase income and reduce poverty further more significantly. Human resources can be one of important factors to be considered to make this endeavour more successful. It is essential to study the influence of human resource quality on household income. Thus, the research problem can be formulated as: how can human resource quality influence household income in urban areas of North Sulawesi?

1.2 The Aim of Study

This study is intended to identify the influence of education and entrepreneurship on household income in North Sulawesi. The result of this study can give insight to improve the standard of living of people in North Sulawesi by increasing household income through the improvement of access and quality of education and strengthening entrepreneurship in the region.

2. Literature Review

2.1 The Concept of Income

In the traditional neoclassical growth theory, output growth results from one or more of three factors: increases in labour quantity and quality (through population growth and education), increases in capital (through saving and investment), and improvements in technology (Todaro & Smith, 2012; Smith, 2010). Closed economies with lower saving rates incline to grow more slowly in the short run than those with high saving rates and tend to converge to lower per capita income levels; open economies tend to experience income convergence at higher levels as capital flows from rich countries to poor countries where capital-labour ratios are lower and thus returns on investments are higher. Capital flows can be in the form of foreign direct investment which drives innovation and growth (Modou and Liu, 2017).

Factors of production or inputs and the ability to turn inputs into output is what we know as the production function. As inputs increase, outputs tend to increase as well. The total output in an economy equals total income. In macroeconomics, Keynes views income as a main factor that influences consumption as shown in consumption function, $C = f(Y)$. Keynes made three important points as quoted by Bonsu and Muzindutsai (2017) from Jhingan. First, consumption

expenditure depends mainly on absolute income for the current period. Second, consumption is a positive function of the absolute level of current income, and third, the more income derived, the more the consumption expenditure in that period.

Based on Case et al (2009), households generate their income from three sources: (1) wage or salary, (2) property such as capital and land, (3) government. Wage and salary are determined by skill and knowledge obtained through education, training, and experience. In general, education is the most important factor influencing income. Income from property is generated from the ownership of real as well as financial assets. Profit, interest, dividend, and rent are the form of income from property. Income from government is known as transfer, the payment to the people with no obligation to offer or supply goods or services to the government.

Every household uses its income to buy goods and services to satisfy its needs. Household income is a figure which clearly describes and measures economic welfare of individuals or households. Households of higher income are those directly enjoying better life or higher welfare due to their ability to fulfil their needs. National income is often used as a measure of satisfaction or economic welfare (Ahuja, 2002:27) -- though some economists disagree national income and per capita income as the measure of economic welfare. High national income, and thus high per capita income, will always be needed and turns out to be one of the targets to be achieved in any economic development program. There is no economic progress to be realized without economic growth.

Dollar and Kraay show that the incomes of the poor move one-for-one with overall average incomes, suggesting that poverty reduction requires nothing much more than promoting rapid economic growth (Balisacan et al., 2002; Kindangen and Paruntu, 2015) or fostering income to increase. However, the basic problem is not only linked to how to increase national income, but also who are those involved in growing the national income, a large part of society or just a small number of people in an economy (Todaro dan Smith, 2003).

2.2 The Concept of Human Resources as Production Inputs

A household or a business unit can transform inputs into outputs in various ways, using various input combinations of labour, raw materials, and capital goods. The correlation between inputs and production is explained by a production function. A production function indicates the highest output to be achieved by a firm for every combination of inputs (Pindyck and Rubinfeld, 2009). Production inputs or factors of production consist of land, labour, physical capital, human capital, and entrepreneurship (Miller, 2010).

Romer (2012:159) asserts the ignorance of all the differences in human capital by Robert E. Hall and Charles I. Jones even on the years of education. It implies that education is considered as a very important factor in developing human capital. Romer further states that the quality of education, on-the-job training, informal acquisition of human capital, child rearing, and even prenatal care are the important factors in the development of human capital. Education increases knowledge; the amount of knowledge and how it is used are key determinants of productivity or total factor productivity (Chen and Dahlman, 2004:4). Income in the form of wage is considered as an important indication of the quality of human capital.

Todaro and Smith (2012) view that education and health have central and vital role in economic development. The distribution of education and health in a country is equally important as the distribution of income. Education and health are the form of human capital and that education is a main issue in achieving enjoyable life, plays a strategic role in developing capability to absorb modern technology as well as capacity to realize sustainable growth. This implies that education results in the capability to increase production and income. The better the education being acquired, the higher is the ability to think forward as that had been accomplished by Lee Kuan Yew for the people of Singapore (Kasali, 2012:202).

Health and education levels are much higher in high-income countries. There are good reasons to believe that the causality runs in both directions: With higher income, people and governments can afford to spend more on education and health, and with greater health and education, higher productivity and incomes are possible. Because of these relationships, development policy needs to focus on income, health, and education simultaneously (Todaro, 2012).

Boone and Kurtz (2011) define entrepreneurship as the willingness to face risk in order to create and operate a business; entrepreneur is someone capable of seeing a potential chance for making a profit and making a plan to achieve success in the market. Entrepreneurship is a process of looking for business opportunities in the constraint of risk (Ebert and Griffin, 2013). It is a process of innovation and creation of new business through the main dimensions of individual, organizational, environmental, and process, supported by collaborative network in government, education, and institutions, while innovation is viewed, by Peter Drucker, as a specific function of entrepreneurship by which entrepreneurs create wealth-generating resources (Kuratko dan Hodgetts, 1998).

As persons with high need for achievement, according to David McClelland, entrepreneurs have at least six characteristics (Nasution et al, 2001). First, enjoy works with realistic risk; second, work more vigorously in the jobs requiring mental capability; third, do not work energetically for the sake of money; fourth, want to work in a situation ensuring personal achievement; fifth, perform better if there is a clear and positive feedback; sixth, tend to think forward and long term. The entrepreneur is someone who specializes in making judgmental decisions about the coordination of scarce resources (Shrivastava and Shrivastava, 2013:2). Mitra and Abubakar states that entrepreneurs are the architects of capacity creation for productivity and growth (Hussain, Bhuiyan, and Bakar, 2014:559). Kindangen and Tumiwa in their research (2015) find that entrepreneurship or spirit of entrepreneurship influences employment positively – thus, increase production and income.

There are 11 general characteristics of entrepreneurs (Kuratko and Hodgetts, 1998:97): (1) total commitment, determination, and perseverance; (2) drive to achieve and grow; (3) opportunity and goal orientation; (4) taking initiative and personal responsibility; (5) persistent problem solving; (6) realism and a sense of humour; (7) seeking and using feedback; (8) internal locus of control; (9) calculated risk taking and risk seeking; (10) low need for status and power; (11) integrity and reliability. An entrepreneur does not have to possess all the characteristics, but the more of them are acquired, the higher is his/her quality of entrepreneurship.

3. Research Method and Respondents

3.1 Research Method

This research was conducted in North Sulawesi Province of Indonesia, in April to September 2014, by collecting and analyzing primary data of 340 household-based respondents in five cities or urban areas: Manado (135 respondents), Bitung (73 respondents), Kotamobagu (54 respondents), Tomohon (45 respondents), and Tahuna (32 respondents). The respondents are the head of households and/or housewives working as civil servants or employees, teachers, businesspersons, farmers, or fishermen.

Based on the literature review, the variables of education and entrepreneurship can influence income positively. Thus, $Income = f(\text{education, entrepreneurship})$. Household income is defined as the total income of household in a year. For education, one of the measures is the length of time someone pursuing formal education. Thus, in this research, education is defined as the year of education of respondents. Entrepreneurship can be identified in various characteristics. Among the characteristics or spirits of entrepreneurship are initiative and action, commitment

and perseverance, as well as adaptive ability. The characteristics just mentioned are selected as proxies of entrepreneurship. Initiative and action is a composite number of ideas and free willingness to start something by planning and performing. Commitment and perseverance is a composite number of the factors indicating sincerity and determination on the endeavour to achieve objectives. Adaptive ability is a composite number of attitude and adaptive action facing changes.

In this research, household income, hence, can be influenced by or depend on years of formal education, initiative and action, commitment and perseverance, as well as adaptive ability. It can be formulated as $HI = f(YE, IA, CP, AA)$. Data analysis was conducted by employing multiple linear regression method with the semilog model

$$\ln HI = b_0 + b_1 YE + b_2 IA + b_3 CP + b_4 AA + \mu$$

LnHI = household income in natural log; YE = year (length) of education; IA = initiative and action; CP = commitment and perseverance; AA = adaptive ability; b_0 = constant; b_1, b_2, b_3, b_4 = regression coefficients of YE, IA, CP, and AA respectively; μ = disturbance error.

The hypothesis of this research is that year in education (YE), initiative and action (IA), commitment and perseverance (CP), as well as adaptive ability (AA) as the independent variables simultaneously and partially influence household income (lnHI) as the dependent variable.

The significance partial influence of each independent variable on the dependent variable is determined by conducting t-test and the significance overall influence is ensured by F test. To check the existence of classical assumption, the study employs diagnostic tests of multicollinearity, heteroscedasticity, and normality.

A regression model is said to have a problem of multicollinearity if there is a perfect linear relationship among independent variables (Gujarati, 2003). This problem will cause difficulty in knowing the influence of independent variables on the dependent variable. A test is conducted to make sure there is no multicollinearity problem. Heteroscedasticity is a phenomenon of different variance across data series. Heteroscedasticity has more frequently happened in cross section data than in time series data. Scatter plot graphical method is used in this research to detect heteroscedasticity. Normality test is also conducted to identify whether the distribution of residual is normal or not.

3.2 The Respondents

The sample of this research consists of 340 household-based respondents represented by the heads of households and/or housewives in five urban areas (Manado, Bitung, Tomohon, Kotamobagu, Tahuna) in North Sulawesi Province. The respondents based on job are shown in table 1. The data show that almost 56 percent of the respondents are businesspersons of micro and small scale.

Table 1: Respondents based on Job

Main Job	Number of Respondents	Percentage
Civil Servant	49	14.4
Employee of State-Owned Company	17	5.0
Army/Police	1	0.3
Micro and small-scale businessperson	189	55.6
Farmers, Fishermen, etc	84	24.7
Total	340	100.0

Source: Primary data

Table 2 shows the data of respondents by education. About half of the respondents are those with high school education, followed by those with higher education (academy and university).

Tabel 2: Respondents by Education

Education Level	Number of Respondents	Percentage
Primary School	36	10.6
Junior High School	31	9.1
High School	169	49.7
Diplome/Academy	31	9.1
Undergraduate (university)	60	17.6
Graduate (university)	10	2.9
Total	340	100.0

Source: Primary data

4. Results and Discussion

4.1 Several Tests

Validity test was conducted and the result shows Pearson Correlation > 0.3 indicating that the data of the variables are valid. Reliability test results in Cronbach's Alpha > 0.6 for all research variables indicating that the instrument of this research is reliable.

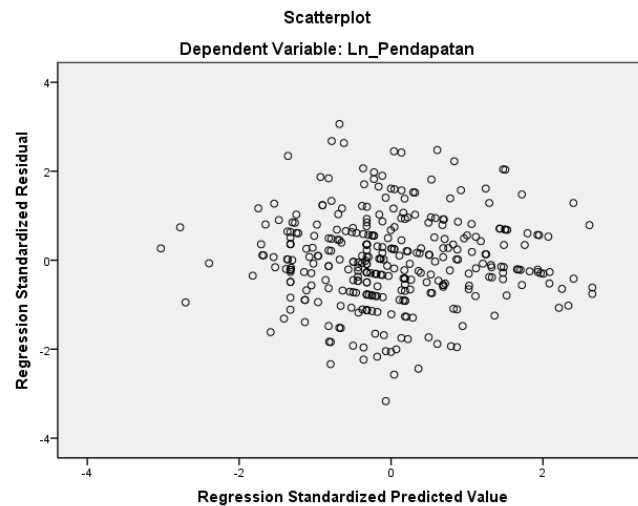


Figure 1: Scatter plot of heteroscedasticity test

Heteroskedasticity test. Regression model is good if, among other, there is no heteroscedasticity problem. The data processing results in the scatter plot with no clear pattern. It means that independent variables are free from heteroscedasticity.

Multicollinearity test. The objective of multicollinearity test is to find out whether there is correlation between independent variables. The result of the test shows no correlation between independent variables as shown by the value of VIF < 10 . It means that there is no problem of multicollinearity in the model.

Normality test. This test is required to determine whether in the regression model the variables are normally distributed as another indication of a good regression model. If the data spread around and along the diagonal line then the assumption of normality is justified. The result shows that the assumption is justified; the data are scattered around and along the diagonal line. Due to the big amount of the data (340 respondents), then they form a solid line.

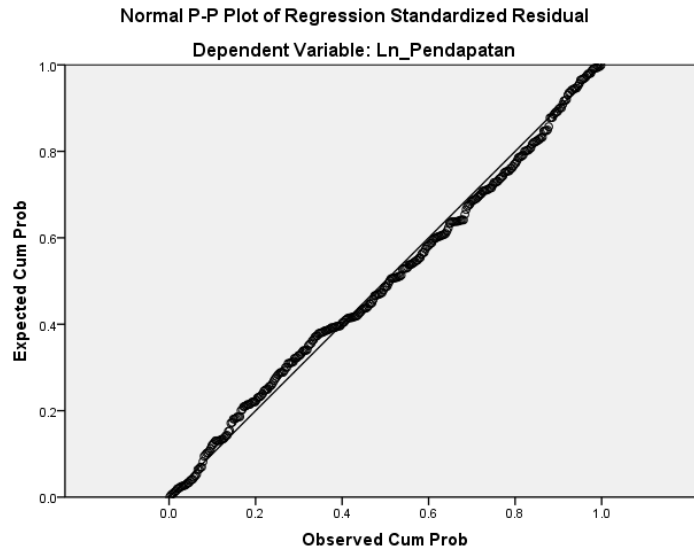


Figure 2: Normal P-Plot of Regression Standardized Residual

4.2 Results of Regression Analysis and Discussion

Multiple linear regression with year of education (YE), initiative and action (IA), commitment and perseverance (CP), and adaptive ability (AA) as independent variables and household income as dependent variable (Ln HI) in North Sulawesi Province of Indonesia gives result as shown in table 3.

Table 3: Results of Regression Analysis

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	6.087	.222		27.436	.000		
Year of Education (YE)	.050	.016	.174	3.204	.001	.933	1.071
Initiative and action (IA)	.162	.064	.201	2.538	.012	.439	2.279
Commitment & perseverance (CP)	.105	.053	.056	2.193	.373	.712	1.405
Adaptive ability (AA)	.126	.055	.167	2.276	.023	.513	1.949

Dependent Variable: household income (Ln HI)

Source: primary data analysis

The result in table 3 is expressed in regression equation as follows:

$$\text{LnHI} = 6.087 + 0.050 \text{ YE} + 0.162 \text{ IA} + 0.105 \text{ CP} + 0.126 \text{ AA}$$

It shows that all the coefficients of regression have positive sign, indicating that year of education, initiative and action, commitment and perseverance as well as adaptive ability have positive influence on household income. These mean that better education, better initiative and action, better commitment and perseverance, and higher adaptive ability each tends to result in higher household income, assuming the other factors do not change.

Overall test of hypothesis using F test was conducted and the result shows that all independent variables – YE, IA, CP, and AA – simultaneously and positively influence household income in North Sulawesi significantly as indicated by the significance number of < 0.01.

Table 4: ANOVA^b

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	3.370	4	.843	6.714	.000 ^a
Residual	42.042	335	.125		
Total	45.412	339			

a. Predictors: (Constant), YE, IA, CP, and AA.

b. Dependent Variable: LnHI.

Source: Primary data analysis.

Partial test of hypothesis using t-test was conducted to find out the significance of partial influence of each independent variable on the dependent variable. The result shows that YE, IA, and AA each has partial influence on household income as indicated by the significance level of less than 0.05. Year of education (YE) and initiative and action (IA) each has very significant influence on household income, instead, with significance value of 0.01. Commitment and perseverance (CP), nevertheless, does not have significant influence.

The coefficient of correlation shows that the relationship or correlation between the independent variables and the dependent variable is strong, indicated by $R = 0.727$.

Strong correlation is in line with the significance influence, simultaneously and partially, of independent variables -- unless of commitment and perseverance (CP) -- on the dependent variable. Coefficient of determination, $R^2 = 0.607$ indicates that almost 61 percent of the variation in household income is determined by the variation of the independent variables, namely years of education, initiative and action, commitment and perseverance, and adaptive ability. About 39 percent of the variation in household income is determined by the factors outside of the model.

Table 5: Coefficient of Determination

Model	R	R Square	Adjusted Square	R	Std. Error of the Estimate	Durbin-Watson
1	.727 ^a	.607	.063		.35426	1.937

a. Predictors: (constant), education, commitment and perseverance, initiative and action, adaptive ability.

b. Dependent Variable: Ln of household income

Source: Result of primary data analysis

The result of analysis indicating significant-positive-simultaneous influence of all the independent variables as well as significant-positive-partial influence of the years of education, initiative and action, as well as adjustment ability on household income match up the theoretical expectation that education and entrepreneurship have positive influence on household income.

Theoretically, the higher the knowledge or the higher the education is then the higher the ability of people to think will be, the better the ability to do something, the higher the ability to solve problems. The more the years of education, the more knowledge obtained and, hence, the more rational people in viewing and understanding problems as well as finding solution or doing something to solve problems. Education enables people to achieve better performance in various activities including production and, hence, achieve higher income.

Then, entrepreneurship or the spirit of entrepreneurship does also theoretically influence positively household income. Initiative and action is an important quality of human resources or more specifically an important indicator of entrepreneurship that enables someone to overcome problems by actively initiating thinking and doing something in order to solve problems and reach an objective. Without initiative and action, someone just waits and sees without doing something and later on realizes that he or she has wasted time and opportunity. People with initiative and action always have better opportunity to reach their objectives despite facing various problems and difficulties. Adjustment ability is a quality of human resources and especially of entrepreneurship that enables someone to face various changes. A change in government policy, an economic crisis, an increase in competition, a change in technology are among so many changes that might happen. Without adaptive ability, any of these changes may hurt or even make someone unable to solve or even escape from a problem or difficulty. In this research, the better the quality of human resources, or specifically the better the quality of entrepreneurship of the head of household and/or housewife is, the higher the household income is expected to be.

The result of analysis shows that commitment and perseverance do have positive influence on household income, but the influence is not significant. It does not necessarily mean, however, that commitment and perseverance are not important for increasing household income. If someone has better commitment and perseverance in conducting a work or solving problem, then the objective of increasing income can be more likely to be achieved.

Initiative and action as one of the core elements of entrepreneurship quality is very important in making the progress in various fields as a reality. Initiative is always joined by real action; it is followed by action, but action may not occur as a result of initiative. If the actions of heads of households and/or housewives are conducted with initiatives, then the actions will be more able to result in progress or increase production and income. Initiative and action drive creativity that enable someone to see various ways and choose the best way to solve problem and achieve objective. Initiative and action, thus, result in higher productivity.

To ensure success of working as a result of initiative and action, however, we need to have perseverance or determination in doing the work despite the various problems or difficulties encountered. Thus, initiative and action along with perseverance are a combination or integration of a number of strengths that brings about advancement.

Someone with high spirit of entrepreneurship, in the form of initiative and action, usually tends to think of possible actions and phases to be done and, of course, strives to realize the thought and idea in the best real action and work to achieve objective. With that spirit, someone would like to act immediately, without postponement, to solve problem and achieve the objective or realize his or her dream. Thinking is the beginning of an initiative to find a good idea and plan of action to make the objective accomplished. Action that is based on thinking and planning could give the best possible, efficient and effective, result. If the objective of an individual or a household is to achieve a certain level of income, then the ability to think will result in creative ideas for making it happened.

If the activity of thinking is often conducted then the quality of thinking keeps increasing and results in increasing quality of ideas and actions to achieve objectives. Initiative and action as one of the elements of entrepreneurship, hence, tend to influence income positively. Head of household and/or housewife with better or higher initiative and action tends to have higher household income as shown by this research finding in North Sulawesi, Indonesia.

Indonesian dictionary, Kamus lengkap Bahasa Indonesia, shows the meaning of commitment as a contract or agreement to do something. Someone with a commitment to achieve an individual or a household objective does at least make an agreement to himself/herself to be

loyal for achieving the objective. With the agreement to achieve a level of household income, head of household and/or housewife will be motivated to keep trying and working in order to achieve the objective. Commitment tends to exist with or be followed by perseverance and, thus, someone with commitment spirit will be more capable of achieving objective. Commitment and perseverance variable is one of the very important qualities of entrepreneurship giving energy to the head of household and/or housewife to keep doing the best to achieve higher income.

A household or someone with commitment and perseverance to achieve higher income generally considers that level of income as a very important objective and, hence, will do every effort to make it a reality. The higher income someone wants to achieve, the more the endeavour to be required. Commitment and perseverance could guarantee hard and focused work toward the accomplishment of the objective. Perseverance, usually as a result of a strong commitment, could make someone capable of overcoming problems. Even loss in the effort to achieve goal could be taken into account as learning cost to improve life.

Adjustment or adaptive ability as another characteristic of entrepreneurship could give better chance to have better alternative action and steps in a situation when current activities or business are in difficulty due to a sudden and unexpected change. As Okpara (2007) states, entrepreneurs are inclined to be more adaptable and are prepared to consider a range of alternative approaches. The difficulties due to the unexpected change could reduce the chance to get the expected result unless the head of household and/or housewife have (has) the ability to adjust or adapt steps and action to achieve the intended goal. A situation which causes a household unable to keep doing certain action and steps to attain the intended goal requires the household to change or adjust the steps and action. It is also possible to adjust goal along with the steps and action to allow the household to keep moving forward to achieve higher production and income.

In general, education and spirits of entrepreneurship influence poverty alleviation in North Sulawesi. This results in line with theoretical expectation and the results of various empirical research. As Hussain and Bhuiyan (2014) concluded in their review on various empirical literatures, entrepreneurship development is a key tool for poverty reduction; stimulating employment as well as fast-tracking realization of universal primary education and women entrepreneurs played a major role in poverty reduction in the Globe.

5. Conclusion and Recommendations

This study analyzed the influence of human resource quality on household income. The primary data were obtained from 340 respondents working as civil servants, teachers, micro and small businesspersons, farmers, and fishermen in five cities and urban areas of North Sulawesi Province, Indonesia.

Based on the result of analysis and discussion, this study finds that human resource quality in general positively influence household income in North Sulawesi. More specifically, four points of conclusion can be formulated. Firstly, human resource quality represented by education and entrepreneurship - entrepreneurship is expressed in three variables: initiative and action, commitment and perseverance, and adaptive ability – simultaneously influence positively and significantly the household income in North Sulawesi. Secondly, education variable partially has positive and significant influence on household income. Thirdly, the variable of commitment and perseverance does partially have positive influence on household income, but the influence is not significant. Fourthly, the variable of initiative and action as well as the variable of adaptive ability both have positive and significant partial influence on household income.

Based on the conclusions, four recommendations can be formulated. Firstly, since the variables of human resource quality either simultaneously or partially influence household income positively and significantly, unless that of commitment and perseverance, then the regional government should pay attention to education and entrepreneurship in order to increase the income of the people, particularly of the households in the region. Secondly, it is important that the regional government make the efforts to support and motivate children of school age to attend school and have education; those in high school be motivated to continue their studies in higher education level. Thirdly, the government should encourage the development of entrepreneurship spirit of the people by internalizing the entrepreneurship education in the curriculum from elementary school to the higher education. Fourthly, it is essential to conduct entrepreneurship trainings on entrepreneurship, especially for the young generation, in order to increase the ratio of entrepreneurs to population in the region and, thus, could increase employment as well as income.

Acknowledgements

It is a pleasure to acknowledge and thank for the contribution of several students of the Faculty of Economics and Business Sam Ratulangi University in data collection and for the contribution of Johan Tumiwa, a young colleague in the faculty, in data processing. Special thanks to the Editors of the Journal for their valuable comments and suggestions on the previous version of the manuscript that has improved the content and quality to the present condition.

References

- Ahuja, H.L. (2002), *Macroeconomics, Theory and Policy*, Revised Edition, S. Chand & Company Ltd, New Delhi.
- Bonsu, Ch.O., Muzindutsi, P.F., (2017), "Macroeconomic Determinants of Household Consumption Expenditure in Ghana: A Multivariate Cointegration Approach", *International Journal of Economics and Financial Issues*, 7(4), 737-745
- Boone, L. E. and Kurtz, D. L (2011), *Contemporary Business*, International Student Version, 14th edition, John Wiley & Sons (Asia).
- Case, K. E., Fair, R. C., and Sharon, M. O. (2009), *Principles of Economics*, Pearson Education.
- Chen, D.H.C and Dahlman, C.J. (2004), *Knowledge and Development, A Cross-Section Approach*, World Bank Policy Research Working Paper 3366, August.
- Colander, D.C. (1998), *Macroeconomics*, Third edition, The McGraw-Hill Companies, Inc.
- Ebert, R. J. and Griffin, R. W. (2013) *Business Essentials*, Ninth edition, pearson Education Limited.
- *Economic Growth*", *International Journal of Innovation and Economic Development*, Volume 3, Issue 1 April, 72-85
- Gujarati, D. (2003), *Basic Econometrics*, Fourth edition, New York McGraw-Hill Companies, Inc.
- Hisrich, R. D, Peters, M. P., and Shepherd, D. A. (2008), *Entrepreneurship*, Seventh edition, McGraw-Hill/Irwin
- Hussain, M. D., Bhuiyan, A.B., and Bakar, R. (2014), "Entrepreneurship Development And Poverty Alleviation: An Empirical Review", *Journal of Asian Scientific Research*, 2014, 4(10): 558-573
- Kasali, .(2012), *Cracking Values; Bersih, Bersinar, dan Kompetitif*, PT Gramedia, Jakarta.
- Kindangen, P. and Paruntu, C.P. (2015), *Poverty Reduction In Indonesia: A Challenge Facing Asean CEconomic Community*, *Journal of ASEAN Studies On Maritime Issues*, Vo. 1, No. 1:1-14.
- Kindangen, P. and Tumiwa, J.R. (2015), *Kewirausahaan dan Kesempatan Kerja di Kabupaten Minahasa Tenggara*, *Jurnal LPPM Bidang EkoSosBudKum*, vol. 2, No.2:85-98.

- Kuratko, Donald F. and Hodgetts, R. M. (1998), *Entrepreneurship A Contemporary Approach*, Fourth edition, The Dryden Press.
- Landsburg, S. E. and Feinstone, L. J. (1997), *Macroeconomics*, McGraw-Hill
- Miller, Roger LeRoy (2010), *Economics Today*, Fifteenth edition, Pearson Education.
- Modou, D. and Liu, H.Y., (2017), "The Impact of Asian Foreign Direct Investment, Trade on Africa's
- Naryanto, H. S., Nograho, S. P., Kurniawan, L., and Ikawati, Y. (2009), *Indonesia Diantara Berkah Musibah*, Kementerian Negara Riset dan Teknologi
- Nasution, A.H., Noer, B. A., and Suef, M. (2001), *Membangun Spirit Entrepreneur Muda Indonesia*, Suatu Pendekatan Praktis dan Aplikatif, PT Elex Media Komputindo.
- Okpara, F. O. (2007), "The Value Of Creativity And Innovation In Entrepreneurship", *Journal of Asia Entrepreneurship and Sustainability*, Volume III, Issue 2, September.
- Pindyck, R. S. and Rubinfeld, D. L. (2009), *Microeconomics*, 7th edition, Pearson Education.
- Prianto, A. (2012), "Identifikasi Berbagai Faktor Pemicu Orientasi kewirausahaan (Studi pada Para Pengusaha di Empat Kota di Jawa Timur)", *Jurnal Manajemen dan Usahawan Indonesia*, vo. 41, No 3, Mei-Juni, Lembaga Manajemen FE UI.
- Romer, D. (2012), *Advanced Macroeconomics*, Fourth Edition, McGraw-Hill.
- Shrivastava, S. and Shrivastava, R. (2013), "Role of Entrepreneurship in Economic Development with special focus on necessity entrepreneurship and opportunity entrepreneurship", *International Journal of Management and Social Sciences Research (IJMSSR)* ISSN: 2319-4421, Volume 2, No. 2, February
- Smith, D. (2010), *The Role of Entrepreneurship in Economic Growth*, *Undergraduate Economic Review*, Volume 6 | Issue 1 Article 7
- Todaro, M. P. and Smith, S. C. (2012), *Economic Development*, Eleventh Edition, Addison-Wesley