

POVERTY ALLEVIATION IN URBAN AREAS OF NORTH SULAWESI, INDONESIA: THE ROLE OF HUMAN RESOURCES

¹Paulus Kindangen, ¹Johan Reineer Tumiwa, ¹Jantje L. Sepang

¹Faculty of Economics, Universitas Sam Ratulangi

ABSTRACT

Poverty is an economic and social phenomenon that exists in the whole history of human being in all nations including the developed ones. Many countries in the world and especially in Indonesia determine poverty alleviation as priority program in the endeavor to improve welfare of people. North Sulawesi, a province of Indonesia, also places poverty alleviation as an important agenda.

The objective of this research is to find out how poverty alleviation is affected by education as a proxy of knowledge, initiative and creativity, commitment and perseverance, adaptive ability, as well as working hour. Since all the independent variables represent human resources, hence, this research gives important information on the effect of human resources on poverty alleviation.

This research was conducted by collecting data from household heads and/or housewives with the main job of micro and small business, farmer, employee/teacher, and skilled worker or craftsman. The sample of 230 respondents were purposively chosen in four cities of North Sulawesi Province: Manado, Bitung, Tomohon, and Kotamobagu. The respondents were those at least have secondary school education.

Data analysis was conducted using multiple regression. This research finds that the independent variables – education, initiative and creativity, commitment and perseverance, adaptive ability, and working hour – do have positive and significant effect on poverty alleviation in the urban areas of North Sulawesi Province, Indonesia.

Keywords: poverty alleviation, knowledge/education, entrepreneurship, initiative and creativity, commitment and perseverance, working hour.

INTRODUCTION

Like many developing countries, Indonesia places poverty alleviation as a priority program in the effort to increase welfare of its people. Various kinds of program for poverty alleviation

have been implemented. Every year, in the state budget of Indonesia there are various kinds of fund being provided by the government, among others, that for subsidies, village fund, infrastructure development in rural areas, development of micro-small-medium business, financial inclusion program especially for agriculture sector, rice for the poor, and university scholarship for the poor.

Over the years, poverty figure in Indonesia tends to decrease. Indonesia has experienced significant poverty reduction since the 1970s. The period from the late 1970s to the mid-1990s is considered one of the most “pro-poor growth” episodes in the country’s economic history (Anonim, 2006:2). Due to various development policies and programs, such as better food security, agricultural development, the provision of revolving loans, investment in education, health services, and infrastructure development, the number of poor people decreased from 54.2 million (40.1%) in 1976 to 34.5 million (17.7%) in 1996. Growth is believed to be the most important determinant of poverty reduction.

Asian Financial Crisis that hit Indonesia suddenly soared the poverty figure in 1998. Then, from the beginning of this millennium, poverty in this country shows decreasing trend. In March 2018, for the first time, the figure reaches the level below 10 percent, precisely at 9.8 percent. In North Sulawesi, poverty level in March 2018 is 7.8 percent, decreasing from 8.34 percent in 2016.

Poverty incidence has been decreasing in many years, but various programs of poverty alleviation of the government should have reduced poverty incidence to the lower level than that of the current figure. Nevertheless, reducing poverty to the lower level when it has already been at low level seems become more difficult. It requires more strategic endeavor to alleviate poverty, to overcome the root of the problem, such as to improve the quality of human resources.

Knowledge is one important indicator of human resources or more specifically human resource quality. Knowledge enables someone to see and understand problems and be capable of solving the problems in order to achieve an objective such as a higher level of income or escaping poverty. Education is a representation of knowledge and is supposed to have important role in alleviating poverty. Education equips people with knowledge and increases awareness on the importance of achieving higher standard of living. Education endows students or people with the ability to understand various problems of life and to solve problems in order to achieve objective.

Entrepreneurship is another important aspect of human resources. Entrepreneurship can be represented by initiative and creativity, commitment and perseverance, adaptive ability, and

working hour. These variables which represent entrepreneurship can be considered as having important role in alleviating poverty.

The objective of this research is to find out the influence of knowledge (education) and entrepreneurship on poverty alleviation in urban areas of North Sulawesi.

LITERATURE REVIEW

1. Poverty alleviation

Millennium Development Goals (MDGs) is considered focusing on poverty reduction or poverty alleviation and human development to reach a basic level of income, education, and health as well as gender equality (Bates-Eamer, et al.,2012:4). This implies that world leaders have been paying serious attention on human welfare especially through poverty alleviation.

Poverty reduction in Indonesia is considered as a success story in international view and obtains approval of World Bank (Hill, 2001):252) despite the income distribution that is still considered not satisfying yet. Income distribution still exists as a problem that needs more serious attention of the government.

Income is a very important variable in economics. High income gives freedom to a person or a household to choose for their consumption. On the other hand, at a low level of income there is very limited or even no freedom at all to choose for it. People with low income, the poor people, can use their income only for purchasing the very essential and limited goods to consume.

John Maynard Keynes in 1936 states important concept on consumption and income (Case et al., 2009:486) that consumption is a positive function of income and that households of high income consume a smaller fraction of income compared to those of low income or the poor people. Additional consumption tends to be smaller compared to the additional income for those of high income. The poor usually consume the whole additional income to meet their basic needs. If the poor people can manage to save more of their additional income, then it means they make a very hard and important decision by sacrificing the fulfillment of their current needs. The poor endure for not fulfilling their current needs in order to be able to consume better in the future. Following Abel and Bernanke (2001:110), if a household can earn a real interest rate of r per year on her saving, then it could consume $1+r$ unit a year later for every 1 unit of current saving. Thus, a household faces a *trade-off* between current consumption and future consumption.

Households usually have income from three sources (Case et al., 2009:392-395): (1) wage and salary; (2) property such as capital and land; (3) government. Wage and salary are determined by skill owned. The skill is determined by education, training, and experience. Education and

training can be considered as the most important factor of income. Following Awan, et al. (2011:659), education increases skills and productivity of household and hence enhances income level.

Income from property is gained through the ownership of real assets and financial asset. This type of income may be in the form profit, interest, dividend, or wage. The ups and downs in the stock market are an important source of changes in financial assets or wealth (Abel and Bernanke (2001:116) and result in changes of income. Income from government is known as transfer that is the payment of government to the people who do not provide or supply goods or services to compensate the payment. Government transfer is usually paid to poor people or those who experienced natural disaster.

2. The Role of Education and Entrepreneurship

Todaro dan Smith (2003) put forward that education has a central and vital role in economic development. Education is a form of human capital and that education is a main factor to reach a satisfying and valuable life, play a key role in the formation of the capability to absorb modern technology and develop capacity in order to realize sustainable growth. The higher the education, the higher the capability to think and act for development (Kasali, 2012:202). Romer (2012:159) asserts the neglect of Robert E. Hall dan Charles I. Jones toward all the differences in human capital other than the difference in the year of education. It means that education is considered as the most important factor in the formation of human capital.

Education and poverty are inversely related. As Awan, et al. (2011:659) asserts, the higher the level of education of the population, the lesser will be the number of poor people because education reveals knowledge and skills which is supportive in higher wages. Education increases earning or income and thus result in poverty reduction. As education improves income, basic needs can be fulfilled more easily and living standard increases which means the fall in human poverty.

T.W. Schultz, considered the father of human capital theory, made economists increasingly aware of the fundamental importance of education as an investment (Aoun, 2014:18). Schultz has two basic points: (1) investment in improving population quality can significantly enhance the economic prospects and welfare of poor people and (2) knowledge is the most powerful engine of production. To alleviate poverty, a high priority must be assigned to human capital through investments in formal education, on-the-job-training, and health programs. Awan, et al. (2001:662) emphasizes that the accomplishment of education enhances the earning potential of individuals and consequently will help people to be out of poverty and that higher level of education will be more effective in poverty reduction.

Aref (2011:499) cited Riddell and Moulton on the link between education and poverty alleviation. Riddell states that education is a critical part of poverty reduction, but studies on the role of education in poverty reduction is considered new. Riddell further states that farmers with some education are better farmers and more capable of finding off farm employment. Moulton asserts that the rural sector benefits from the overall development of the national economy and the alleviation of poverty, in which basic education is essential.

The production of a household or firm is influenced by inputs or production factors. Various combinations of inputs such as labor, raw materials, and capital or capital goods are used to produce output. A production function describes the relationship between inputs and output; it shows the highest production resulted for any combination of inputs (Pindyck dan Rubinfeld, 2009:197).

Inputs of production are the resources required to produce goods (Colander, 1998:67) or anything used by firm as a part of the production process (Pindyck and Rubinfeld, 2009:196). Referring to Miller (2010:28,29), the classification of production factor is: (1) land, (2) labor, (3) physical capital, (4) human capital, (5) entrepreneurship. In other classification, production factors are: labor, natural resources, capital, and entrepreneurship (Boone and Kurtz, 2011:107). Thus, entrepreneurship is an input for production.

Following Adenutsi (Hussain, Bhuiyan, and Bakar, 2014:561), entrepreneurship is the identification of a new business opportunities and the mobilization of economic resources to initiate a new business or regenerate an existing business, under the conditions of risks and uncertainties, for the purpose of making profits under private ownership. It is a process which may develop an entrepreneur or enterprise in order to make profit using scarce resources. Shrivastava and Shrivastava (2013) suggests that entrepreneurship at least has two meanings: (1) entrepreneurship refers to ownership and management of a business; (2) entrepreneurship refers to behaviour of catching and taking benefit on opportunities.

Case et al. (2009:749) suggests that innovative entrepreneurs with willingness to face risks are important human resources in any economy. According to McClelland, regardless of variations in economic development, entrepreneurs with high motivation will almost always find ways to maximize economic achievement (UNCTAD, 2004).

As a factor production, entrepreneurship affect positively on the quantity of production, income, and thus poverty alleviation. Kindangen and Tumiwa (2015) find that entrepreneurship influence positively and significantly on employment in Minahasa, North Sulawesi. In the other region of North Sulawesi, especially in Kotamobagu and Bolaang Mongondouw, Kindangen and Tumiwa (2017) also find that entrepreneurship influence positively on household income.

Research of Ogfojafor et al. (2011:7) finds that improvement of living standard in Sub Sahara countries, among other in Nigeria, gets better as entrepreneurial capacity is improved. This means that the better the quality or the spirit of entrepreneurship the higher is the living standard of people. Robert Bednarzick finds that there is a positive correlation between entrepreneurship and economic growth (Smith, 2010:4). Kindangen and Paruntu (2015:13) also find that entrepreneurship has positive influence on economic growth and poverty reduction.

RESEARCH METHOD

This research was conducted by collecting household-based primary data. The sample of this research consists of 230 households in urban area of North Sulawesi, Indonesia. The urban area comprises four cities: Manado, Bitung, Tomohon, and Kotamobagu. The respondents were the heads of household and/or housewives of various job background, mainly civil servants including teachers, micro and small business, farmers/fishermen, and craftsmen which at least have secondary school education.

Data analysis of this research was conducted using multiple linear regression of the following equation:

$$PA = b_0 + b_1ED + b_2IC + b_3CP + b_4AA + b_5WH$$

PA is poverty alleviation, ED is education as the proxy of knowledge, IC is initiative and creativity, AA is adaptive ability, and WH is working hour. IC, CP, AA, and WH are the proxies of entrepreneurship. Knowledge and entrepreneurship represent human resources.

Poverty alleviation (PA) as the dependent variable was measured by the difference of monthly income of household and poverty line in the urban region of the sample city. The variable of education was measured by the years of pursuing formal education. The variable of initiative and creativity was measured by a composite number of the ability to initiate and create ideas as well as action to overcome problems and achieve objective. The variable of commitment and perseverance was measured by a composite number of firmness, dedication, and endurance in doing various activities, especially productive activity, in order to achieve objective. Adaptive ability is a composite number of the ability to adjust or adapt when facing a situation requiring someone be adaptive or to change in order to continue doing good thing to achieve objective. Working hour is measured by the time or hours spent for working in a week.

RESULT AND DISCUSSION

The result of linear regression analysis is shown in Table 1.

Table 1: The Coefficients of Regression

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	6,108	,303		20,144	,000		
ED	,757	,185	,262	4,097	,000	,988	1,012
IC	,154	,054	,048	2,854	,006	,509	1,965
CP	,142	,044	,110	3,228	,002	,507	1,973
AA	,093	,036	,009	2,611	,009	,608	1,646
WH	,626	,154	,134	4,070	,000	,962	1,039

a. Dependent Variable: Poverty Alleviation

The result of analysis in Table 1 can be expressed in regression equation form as follows:

$$PA = 6,108 + 0,757ED + 0,154 IC + 0,142 CP + 0,093AA + 0,626WH.$$

The result shows that all independent variables have positive coefficients which mean that every independent variable influences the dependent variable, poverty alleviation, positively. The higher the education (ED), measured in the years the heads of household and/or housewives joining formal education, the better is poverty alleviation of households. Thus, education that represents knowledge tend to result in poverty alleviation or causes households to leave poverty or reaching better well-being.

The independent variable of initiative and creativity (IC) has a positive sign coefficient which means having positive influence on poverty alleviation. Better initiative and creativity tend to result in more effective poverty alleviation.

Commitment and perseverance variable (CP) with positive sign of coefficient implies that the stronger the commitment and perseverance of households the better is poverty alleviation would be. Adaptive ability also indicates positive influence on poverty alleviation as shown by its positive sign of regression coefficient. The more adaptive the households the more the poverty alleviation can be made a reality.

Like the other independent variables, working hour shows a positive coefficient. It indicates positive influence of working hour on poverty alleviation. The longer the heads of household and/or the housewives work weekly, the more the poverty alleviation be realized or the more effective the households leave the condition of poverty.

The result of this research fulfills theoretical expectation as shown by the positive coefficients of the education variable which means that as education improves, the poverty reduction gets better. This research also supports previous empirical research of Kindangen, et al. (2017) that education influence household income positively. Other empirical evidences such as that of Card and Krueger and of Choi and Jeong (Adam and Negara, 2015:95) have shown that the relationship between education and earnings is especially important for the poors as in many cases labor is their only significant asset.

Theoretically, education influences poverty negatively. The higher the education the less is the poverty level as a result of higher income. Education endows knowledge and skill which enable people or households to identify and solve problems. Knowledge and skill enable households to work better and more productive, and hence increase production as well as income. Awan, et al. (2011:659) observes the linkage between education and poverty that investment in education increases the skills and productivity of poor households. Education increases the income level as well as the overall standard of living.

As income increases, households can fulfill better their needs and, thus, improves their well-being. Better knowledge and skill can also improve the ability to make better decision to use their income wisely and to do better or more profitable activity in order to increase income further and thus reduce poverty much further.

Initiative and creativity denote the quality of human resources, especially indicate entrepreneurship characteristic. Someone or a household with good initiative and creativity is capable in creating opportunities and taking advantage of them by always active to do something industriously and productively. It is important, thus, to give emphasis on creative and innovative thinking in the endeavor to increase the quality of education (Arman, 2017:22).

Higher productivity – as the result of having initiative and creativity -- enables a household to fulfill better its needs and accordingly alleviate or leave poverty. Farmers or fishermen, for example, with better initiative and creativity can always able to see and catch opportunities to increase production. Increasing production of rice or fish will allow them not only to fulfill their needs directly but also to have more of the products to be sold for income. A finding of a research in North Sulawesi conducted by Kindangen, at al. (2017) shows that households of higher initiative tend to have higher income. Higher productivity in any endeavor certainly results in better well-being and as a necessary condition for the poors to alleviate poverty. The result of this research regarding the role of initiative and creativity, thus, matches the theoretical expectation and supports previous research.

The result of this research shows a positive sign of the coefficient of commitment and perseverance or indicates positive influence on poverty alleviation. This result supports the finding in the research of Kindangen and Tumiwa in Kotamobagu and Bolaang Mongondou (2017) that commitment and perseverance of households in the two regions of North Sulawesi influence income positively. Commitment and perseverance make people able to keep going on conducting their work to achieve goal. Doing work with commitment and perseverance give better opportunity to be succeed, reaching goal with high performance. Thus, commitment and perseverance can guarantee households to be productive and reaching better income, alleviating and leaving poverty.

Adaptive ability is a quality of people enabling them to face various changes including those due to economic crisis. Changes that result in difficulty can bring good opportunity to those with adaptive ability. They sustain in difficult situation and then find a way to escape or fight the difficulty as well as struggle to do something enabling them to be better off. Adaptive ability makes people capable of keep finding a way out from impediment and hence be able to avoid or alleviate poverty.

Working hour that positively influence poverty alleviation is also shown by the result of this research. In economic theory, labor influence quantity of production positively (Abel and Bernanke, 2001:62; Pindyck and Rubinfeldt, 2009). Labor is usually measured in working hour. Thus, theoretically, working hour affects positively on production and, hence, on income. As income increases due to more working hour dedicated in any productive activities, households are better able to fulfill their needs. When households fulfill their basic needs, they are no longer in poverty. People who work hard or industriously are capable to produce better or to be more productive and have a good chance to keep increasing their skills in doing their work and, hence, in the long run able to increase productivity as well as income and well-being.

CONCLUSION

Alleviating poverty is very important in a developing country, specifically in Indonesia. Many factors can influence the poverty alleviation, but this research focuses on human resources which are represented by education as a proxy of knowledge and four other variables as proxies of entrepreneurship. The result of data analysis and discussion gives two main conclusions. *First*, education has positive influence on poverty alleviation or in other words, education reduces poverty. Thus, improving education is very important in the endeavour to reduce poverty. *Second*, initiative and creativity, commitment and perseverance, adaptive ability, and working hour, all representing entrepreneurship, influence positively on poverty alleviation. Developing entrepreneurship thus can be a strategic approach to alleviate poverty or increase the well-being, especially economic well-being, of people in North Sulawesi, Indonesia.

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