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Does Make Career Plan Important: Empirical Study based on Human Capital Theory

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Abstract- This research is an analysis of human resources that aims to determine whether theory of human capital (education spending) affects career planning of labor in the mining sector. Using sample of workers in the mining sector was obtained from National Labor Force Survey (SAKERNAS), which had been collected by Central Bureau of Statistics (BPS) in 2010 in the province of East Kalimantan. The samples were 747 formal sector workers. Analysis tools used are Multinomial Logit. The results showed that vocational education and sex had positive significant impact on the workers who work in the mining sector, therefore career planning can be started early in the planning of education (human capital theory). This study is associated with the empirical study if it can be said that the social (education) affect the initial step in a career workforce. Higher education in this study received less opportunity, while vocational education is more likely able to work in the formal sector.

Keywords: Education, Gender, Formal Mining Sector

1. Introduction

Early contributor to the theory of human capital and assume school age (and experience) as a mechanism that will enhance the ability of individuals to make decisions efficiently in the face of change condition. Last year of school is very important in the career decision making process when students usually start planning, explore and make decisions about work or continue their education. There are not enough research on career planning for high school students (SLTA).

Becker stated in his classic work, human capital, any activities that require a fee in the current period and future productivity can be analyzed within the framework of investment theory, Kaufman and Hotchkiss, (2006: 328). Relative to humans, a number of individual activities carried out in accordance with this conception is an investment, for example education, training, migration, health care, and finding a job. Kaufman and Hotchkiss, (2006: 328) says that, the effects of labor market analysis related to education and training is called the theory of human capital. The core of human capital theory is that spending on education and training is an individual investment in themselves to improve their skills, productivity, and revenue. In explaining differences in income, human capital theory focuses on individual differences in the length of the school year and on-the-job training, and the factors that cause some individuals to invest in human capital more than others.

On the other hand, Ballantine (1993) argues that since most of the career decision is concerned with the individual experience of the relationship they have with their employing organizations, mid-career change to be seen. Similarly, the opinion Hodkinson & Sparkes (1993), in a study of young people leaving school, showing how the process of making a career decision is contrary to the implicit assumptions about the decision making built into the component action planning their career guidance received.

Career planning will provide answers to questions such as:

i. What kind education should they prepare?
ii. Is further training and development needs?

2. Literature Review

The same consideration holds true in the labor market except that the degree of differentiation in the characteristics of jobs and workers in frequently much greater. Individual worker differs by age, race, gender, education, experience, skills, and complex personality factors, such as motivation and congeniality. While a firm may have several types of machinery to choose from in making its product,

every single worker interviews it in some unique way. In choosing between employers, workers face the same diversity in characteristics of jobs. Employers and jobs, for example, differ in the type and difficulty of the work, commuting distance, fringe benefits, and quality of employee relations, as well as wages.

Find jobs for high school students (SLTA) after school is the first step to put the career job. Results of formal education and professional skills acquired during the training process is that determines a person can get a job, (Furia, *et al*, 2010). However, according to Chernoff Boudarbat, 2009, employment opportunities for graduates in Canada were examined using data from Year Graduate Survey 2000, showed that 35.1% are not closely related to the work of education. Similarly, the results Ariani, *et al* (2014) concluded that workers with vocational education (SMK) more absorbed in the mining sector, while higher education are less absorbed in the mining sector. But in Norway, education has an impact on the mobility of workers is causing the region. This is likely to occur because of differences in the level of education in the area, (Machin, *et al*, 2008).

Education possessed also have expectations about revenues that will be received. Similarly, workers in the mining sector, with higher education expect to obtain employment in the mining sector and earn a high income as well. While, according to Furia, *et al*, (2010), that in the era of globalization, especially since the crisis erupted, the state of the labor market is rapidly changing.

Literature studies show that the career needs planning for students who just finished taking education. Individual planning careers is an important way to secure life. A career plan will help employees to feel comfortable at work. Although career planning is not a new concept, but need to be prepared to enter the job market, for new high school students (SLTA) who completed the study. Those who decide to continue their studies have a different view to those who decide to work. Choi, 2007, maintaining all workers have the right to obtain employment in accordance with the level of education and skills, so that they can compete with the employment of the region and outside the region.

Some researchers claim that graduate of higher education of developed and developing countries have experienced a lot of difficulty in finding jobs and university graduates have received job is not commensurate with the training they received, even leading to a problem called *'overeducation' and 'crowding-out'* (Bao, 2006; Dolado *et al*. 2010). Other researchers such as Globerman (1986) and Bartel and Lichtenberg (1987) concluded that educated workers have better comparative advantages with respect to the adjustment and implementation of new technologies. Furia, *et al*, (2010), in a study stating that the learning experience and skills that they have acquired a lifetime can be used to repair a career or making a career change.

Foster (1965) stated that graduates of vocational schools consider their qualifications as admission to a better job (paid or in the sector). According to Foster, it is a vocational certificate as a signal rather than knowledge or skills acquired in vocational schools (SMK).

Some research suggests that vocational education has a greater impact on economic growth compared with general education (Vu, Tam Bang; Hammes, David L.; Iksoon Im, Eric, 2012). In addition, technical and vocational education and skills development becomes an increasingly important issue in development (King, 2009; Palmer, 2009). As in South Africa, a lot of intervention and the creation of institutions and policies as well as a new system for the development of skills, (Allais, Stephanie, 2012).

Aryadike, Nkechi O, (2013), concludes that productivity in public organizations Nigeria has suffered a serious decline, even with a sizeable human resources. The general discontent has put the planning of human resources as a solution to the problem of unproductive employees in Nigerian society organizations. Results of this study to make sure that human resources planning must take precedence.

The importance of human resource planning in public organizations can not be overemphasized. Human resource planning refers to the evaluation and identification of human resource needs of the activities planned to meet socio-economic objectives (Dunn and Stephen, 1972: 2). Therefore, according Yesufu (2006) there are no activities that can be carried out without planning; as nothing can be done in any organization without first determining the organization's human resources needs.

Baruch (2004) showed that career is property of individual, but to be employed, it is the organization that will plan and manage the careers of employees. However, over recent decades the idea that individual is also responsible to meet and build their own careers, instead of leaving it entirely to the organization to manage, has been documented (Baruch 2004).

3. Data and Methods

The data used from the National Labour Force Survey (SAKERNAS) BPS 2010, the labor force (aged 15 years and above), which is owned by the Province of East Kalimantan in 2010. This study uses Multinomial Logit analysis to see probability/opportunities or tendency of workers to work in mining sector, which is the basis or reference for determining/career planning after completing their studies.

4. Research Result

Career is not just a job, but ranges processes, attitudes, behaviors and situations in a person upward working life to achieve career goals research results, Ariani *et al* (2014) indicated in Table 1 may give a preliminary picture how a graduate can plan his/her career.

Education is positive 0.235 for high school education and positive by 0.502 for vocational education, which indicates that upper secondary education have a higher probability than with education below the high school to work in the formal sector of the mining. Specifically, it can be seen that graduates of vocational (vocational) has coefficient (0.502) which is greater than the SMA/SMU (0.235) illustrates that the formal mining sector, many require particular skill (SMK graduates) compared to the general educated workers. Furthermore, workers with education Diploma negative marked by -1.050 and workforce graduated from university education levels also are negative at -1.465. It also shows that an educated workforce has a university diploma and the probability of working in the formal mining sector lower, when compared to SMK. In other words, workers with vocational education the probability is even higher than that of a college education to be absorbed in the formal mining sector. It is might considering the great need for workers with specific skills (SMK).

Table 1: Results of Multinomial logit regression Formal Sector

Multinomial logistic regression		
Number of obs = 8553		
LR chi2 (46) = 1609.28		
Prob> chi2 = 0.0000		
Pseudo R2	= 0.2596	
	Coeficient	Present Value
Sex	1.430	0.000 ***
High School Education	0.235	0.029 **
Vocational education	0.502	0.000 ***
Education Diploma	-1.050	0.000 ***
University education	-1.465	0.000 ***

Source: Sakernas 2010: processed.

*** Significant at the 0.01 level. ** Significant at the 0.05 level. * Significant at the 0.1 level

As the results of research Boudarbat and Chernoff, (2009), that, employment opportunities for graduates in Canada were examined using a data-Year Graduate Survey 2000, showed that 35.1% are not closely related to the work of education.

If we look at the type of work (KBJI, 2002 and KPC: LPB, 2009), turned out to work as Chief Executive Officer, Chief Operating Officer, Chief Financial Officer, GM Mining Development

Division, and others, require workers with qualifications of college graduates. However, the opportunity to work in this type of work is relatively small. So small chance that a consideration for employment with the diploma and a university to get into the mining sector.

Ariani, et al, (2014) research results when associated with the type of work (KBJI, 2002) and KPC: LPB, 2009) as well as the results of research Boudarbat and Chernoff, (2009), that graduates in Canada showed that 35.1% is the work is not closely related to education, the labor force still requires training/additional skills, as summarized by Haji, Haji Semboja Hatibu, (2007), in his research in East Africa that such as developing countries are poor, training in East Africa is still largely related to labor market needs. Young children often do not have access to the labor market services and support needed to help them become decent and productive work.

Thus, it can be said that workers with high school education level, still requires additional skills/experience to be absorbed in the mining sector. Education and training not only gain knowledge but also improve work skills thereby labor productivity will increase. As the results of research Furia, *et al*, (2010), stated that in the European Union, the results of formal education and professional skills acquired during the training process is that determines a person can get a job. Thus, workers can improve the level of education to a higher level and can increase the level of skills, so that they have the opportunity to move into the formal mining sector.

Similarly the results of research Ercan, Hakan (2007), in Turkey which proposes 'education' and then lifelong learning for those who leave the farm. *'Upgrading skills'* to increase the number of well-educated urban youth and looking for work who participated in the labor market. Similarly, the results of research Miau, Chung, Chinag, & Lee, (2005), that vocational school used to practice a role in determining the necessary training of personnel in various fields of industry with the demands of labor. However, education academic institutions began to play role vocational schools.

Increased workforce skills and expertise can be obtained from the labor force was in school, both junior secondary school (SLTP) or senior secondary vocational school (SMK). As the results of research conducted by Pugatch, Todd, (2012), to the urban youth in South Africa and the results show that vocational school play an important role in overcoming the difficulties of transition from school to work for the youth of South Africa. Similarly, in Indonesia (Newhouse and Suryadarma, 2011), the results of their study showed that there was an attempt to support the expansion of the current vocational education, especially for men. On the other hand, Eichhorst, Werner *et al*, (2012), to do research the importance of vocational education and training or VET (*Vocational Education and Training)* for workers who just completed vocational education level (SMK), which gives a better understanding of the VET throughout the world, known as three types of vocational system: school-based education, the dual system in which school-based education combined with enterprise based training, and informal training. In addition, many argue that VET provides skills that are useful to prepare the entry of youth into labor force and increase their chances for a successful professional career (Quintini and Martin, 2006, Middleton *et al.* 1993).

According to Furia, *et al*, (2010) this will affect the labor market, resulting in a gap of individual workers in the labor market caused by disparity of education will have an impact on demand, supply and labor income. For example, in the EU, the results of formal education and professional skills acquired during training process is determines a person can get a job, and on the other hand that higher education quickly respond to the labor market; while Boudarbat and Chernoff, (2009), stating that university graduates are not in accordance with field work.

Indeed the role of education in development strategies of low-income countries has been widely studied. Researchers usually find a significant relationship between education and income, which is often considered to be result of the fact that school has a positive impact on the accumulation of human capital and productivity. Schools generally recognized as the basis for economic growth, human development and poverty reduction in developing countries. Although there are many studies on the relationship between education and income levels of the labor market later, most studies of education in terms size of "quantity," use data years of formal education or educational attainment level. Empirical analysis role played by "quality" of education is rare. Experts have recognized importance of both quality and quantity of schools in determining the productivity of labor and income (Behrman and Birdsall, 1983).

The view that education increases the ability to adapt to change in every person has a long history. Early contributors to human capital theory assumes that schools, skills and experience as a mechanism that will enhance ability of individuals to make decisions efficiently in the face of changing circumstances, both in society and in workplace, (Riddell and Song, 2010). Other researchers such as Globerman (1986) and Bartel and Lichtenberg (1987) concluded that workers are better educated have a comparative advantage with respect to the adjustment and implementation of new technologies.

Comparative advantages possessed by workers in connection with adjustment and implementation of this new technology can't be separated from education has been graduated. Such as research Pages and Stampini, (2009), "has no education, no job is good"? is a proof of the relativity of the relationship between education and labor market segmentation. It is often assumed that education is a passport to a good job. While more educated workers tend to be more productive than less skilled workers, because education can't provide access to good jobs if the labor market is segmented. McCormick, (1997), argues that attainment of higher education levels tend to open up new opportunities in the labor market. So, if the labor market for skilled workers have a national dimension, the level of higher education should increase chances of mobility, especially if workers live in areas with high unemployment rate.

Indeed, as we all know that achieving a higher level of education is important in planning one's career or employment opportunities. Residents province of East Kalimantan in choosing a school or educational investment is still likely to go to school instead school vocational general. Sometimes vocational school is the second choice and public will despise for people who choose vocational schools. School choice destination by public at large by considering income possibility will be obtained after graduating from school. How long to wait for obtain a job after completing education. Furia, *et al,* (2010), in his research by example in the EU, formal education result and professional skills acquired during the training process that determines a person can get a job.

In addition skills using tools, also require strong physical. This is consistent with the results Becker, (1964); Schultz, (1975), human capital theory shows that education directly add individual skills and ability to provide benefits in the labor market. The logic is well-educated workers have productivity and higher capacity.

However, because developing countries have different economic structures, there is concern that the expansion of higher education can produce *over-educated population* to the needs of the community (Berg, 1970; Freeman, 1976). Another concern is *trade-off* between quantity and quality of education. For economists, the labor market is a natural yardstick for measuring the expansion effectiveness of higher education (Card and Krueger, 1996).

Some research suggests that vocational education has a greater impact on economic growth compared with general education (Vu, Tam Bang; Hammes, David L; Iksoon Im, Eric, 2012). In addition, technical and vocational education and skills development becomes an increasingly important issue in development (King, 2009; Palmer, 2009). As in South Africa, a lot of intervention and creation of institutions and policies as well as a new system for development of skills, (Allais, Stephanie, 2012).

5. Conclusion

Mining sector jobs absorb many workers with vocational education and high school in particular for the formal mining sector. Indeed, schools can essentially increase productivity of everyone's innate, but an essential prerequisite is required that individual must learn knowledge or skills are pretty good. If the results of this study associated with empirical studies can be said that social (education) affect the initial step in a career workforce. Higher education in this study received less opportunity, while vocational education is more likely able to work in the formal sector.

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