

The Role of Vocational Education in Indonesia's Economic Development

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Abstract. Education, including vocational education, has an essential role in the development of complete human beings and the development of the Indonesian people as a whole. Human development must be done intact, which includes the development of thinking power, emotional intelligence, physical power, and mastery of science, technology, art and sport. Besides, human development is also expected to produce human capable of and able to play an active role in building the entire Indonesian society. The success or failure of the role of vocational education can be measured from the balance of these two objectives; there is the development of the whole person and the development of the entire Indonesian society. More specifically, the purpose of vocational education includes four main dimensions: Developing basic human qualities that include the quality of thinking power, emotional intelligence, physical power, to develop the instrumental quality/functional quality, namely the mastery of science, technology, art, and sport, strengthening identity as the nation of Indonesia, and maintaining the survival and development of the world. The following outlined the dimensions of the purpose of vocational education.

Keywords: Vocational education, Indonesia's economic, Economic development

INTRODUCTION

Education, including vocational education, has a vital role in the development of complete human beings and the development of the Indonesian people as a whole. Human development must be done intact, which includes the development of thinking power, emotional intelligence, physical power, and mastery of science, technology, art and sport. Also, human development is expected to produce human capable and able to play an active role in building the entire Indonesian society. The success or failure of the role of vocational education can be measured from the balance of these two objectives; there is the development of the whole person and the development of the entire Indonesian society.

More specifically, the purpose of vocational education includes four main dimensions: (1) developing basic human qualities that include the quality of thinking power, emotional intelligence, physical power; (2) to develop the instrumental quality/functional quality, namely the mastery of science, technology, art, and sport; (3) strengthening identity as the nation of Indonesia; and (4) maintaining the survival and development of the world (Slamet, 2009). The following outlines the dimensions of the purpose of vocational education.

First, developing the basic qualities of learners that include the quality of thinking power, emotional intelligence, and physical power can be detailed as follows. The development of the quality of thinking power includes, among other things, the way of analytical thinking, deductive, inductive, scientific, critical, creative, reasoning, lateral, and system thinking.

Secondly, to develop an instrumental/functional/mastery of science and technology, the arts and sports which include: mono-disciplinary, multi-disciplinary, interdisciplinary, cross-disciplinary, soft discipline (sociology, history, economics, politics, culture, etc.) as well as harsh disciplines (mathematics, physics, chemistry, biology and astronomy) and their applied technologies of construction, manufacturing, transportation, telecommunications, biotechnology, energy technology and materials technology).

Third, strengthen the identity (character) as the Indonesian nation who loves the homeland through the four pillars of Indonesian life, namely Pancasila, 1945 Constitution, NKRI, and Bhineka Tunggal Ika, remain faithful and maintain the integrity of NKRI. Faithful to the Unitary Republic of Indonesia is indicated as (1) understanding, realizing, making conscience, obliging conscience, loving and acting in maintaining and maintaining the unity of NKRI; (2) able to ward off when there is a collision between values due to globalization that plagues and undermines the unity of NKRI; and (3)

preserving the noble values of the Indonesian nation and at the same time open to friction with the progress of other countries.

Fourth, to maintain the survival and development of the world described as (1) to maintain the survival and development of the world through existing collective containers (the United Nations and its branches); (2) maintaining sustainable world development from an environmental, economic, and socio-cultural perspective; and (3) reactively, actively and proactively maintain the survival and development of the world, from an economic, political, environmental, and socio-cultural perspective.

Since vocational education is closer to its alignment with the economy and in particular with employment, the remainder of this paper focuses on discussing the alignment between vocational education as a labour supplier and the world of work as a graduate vocational education user, while maintaining a balance between the development of the full learner and the economic development of society Indonesia entirely. For that, the following will be presented: (1) study of the role of education in economic development; (2) conditions of labour supply; (3) demand for labour; and (4) maximizing the role of vocational education in economic development.

THE ROLE OF VOCATIONAL EDUCATION IN ECONOMIC DEVELOPMENT

The study of theories and the results of research on the role of education in economic development has mainly been undertaken since the 1960s essentially that investment in education contributes more in economic development than to investments in other fields (Becker, 1964; Psacharopoulos, 1987, 1994, 1997). Claims like this are easy to see the evidence. Countries with limited natural resources, but with high-quality human resources, their economies are also progressing rapidly, such as Japan, South Korea, Hong Kong, Singapore, and China.

The results of this study also confirmed this. For example, Boediono and McMahon (2001) concluded that investment in education contributes significantly to economic development in Indonesia. The Directorate of Vocational Secondary School Development (2008) conducted a study which concluded "there is a positive relationship between the ratio of vocational school students (SMK) and gross regional domestic product (GRDP). If the province has a low vocational student ratio, it is likely to have a low GRDP value. That is the opposite. Besides, the results of his research also found that "there is a positive relationship between the ratio of vocational students and the rate of economic growth. If the province has a low vocational student ratio, it tends to have a low rate of economic growth ". This finding followed a review conducted by ADB (2008) found all countries invest in technical and vocational education and training (TVET) in fact, correlations indicate that the higher the level of country income, generally the higher the proportion of students enrolled in TVET institutions.

The formal sector consists of businesses that formally have official permission and follow any rules applicable to the business concerned, such as industry/companies, banks, and hotels. The informal sector is a type of business that is generally unlicensed and in Indonesia still absorb 65% of the workforce. The public sector generally deals with public services carried out by the government as well as by the community, such as local governments, schools, colleges, and hospitals—profit businesses, such as industry, banks, hotels, and restaurants. Nonprofit businesses include foundations, education, training, and hospitals. The primary sectors include agriculture, livestock, fisheries, and forestry. Secondary sectors include manufacturing industry, automobile industry, shoe companies, and television companies. The tertiary sector (direct services) includes banks, transportation, hotels, education, and training. The quarter sector is an indirect service, such as consultants and advisors.

The solution, apart from spurring economic growth in these sectors through fiscal and monetary policies that promote greater economic growth and employment, is also necessary through the development of entrepreneurship with the creative economy. Finally, this is important because our educational graduate culture tends to be a worker and is less than happy to be self-employed and as a job owner who employs others. Our economic reality needs young people who are entrepreneurial spirit.

MAXIMIZING THE ROLE OF VOCATIONAL EDUCATION IN INDONESIAN ECONOMIC DEVELOPMENT

To the purpose of vocational education able to maximize its role in the development of the students entirely and economic development, it is necessary to make the following efforts:

The sciences taught to learners of vocational education should be suitable sciences to facilitate the development of learners to become complete human beings and the sciences that are following the characteristics of Indonesia as mentioned earlier. Both are equally necessary and do not slip to sacrifice one. To sacrifice the development of the learner's existence means dehumanizing people and developing learners that are not in tune with the needs of society, especially the world of work, will make vocational education isolated and out of touch with society, especially with the world of work. If this happens, then vocational education does not contribute at all to the development of society.

Strengthen the ability of soft skills of vocational education students in various ways. Mathematically, soft skills = intrapersonal qualities + interpersonal skills. Intrapersonal qualities are the spiritual qualities of human beings that come from within the human heart whose dimensions include humility, self-esteem, integrity, responsibility, commitment, self-motivation, curiosity, honesty, crafts, compassion, self-discipline, self, self-awareness, trustworthiness, and entrepreneurial spirit where the latter is generally sourced from education that liberates human beings so as not to be depressed and become creative which consequently become innovative and able to form the soul of human entrepreneurship. Of course, there are many other dimensions of intrapersonal quality, but too many to mention one by one. Interpersonal skills are skills related to interpersonal relationships whose dimensions include, among others, responsible for all their actions, respect for others, peace, love of neighbour, impassioned communication, leadership, cooperation group, smooth mindedness, sociability, solidarity, tolerance, wisdom, admiration, the courage to do right even though unpopular, democratic, fair, orderly, and many other dimensions of interpersonal skills too numerous to be called one per one. The term soft skills are closely related to other terms, such as character, morals, manners, emotional intelligence, living values, morality, personality, and employability skills for those already working. As long as it deals with human relationships based on humanity, it is called soft skills.

Building links and matches with other systems, as outlined in Figure 1, especially in alignment with the general economic system or working. Strived, vocational education is more directed to demand-driven than supply-driven through more actual learning not just textual, more concrete than abstract, which refers more to reality than to artificial, more real than virtual, and this all require vocational education to get closer to the world of work proactively.

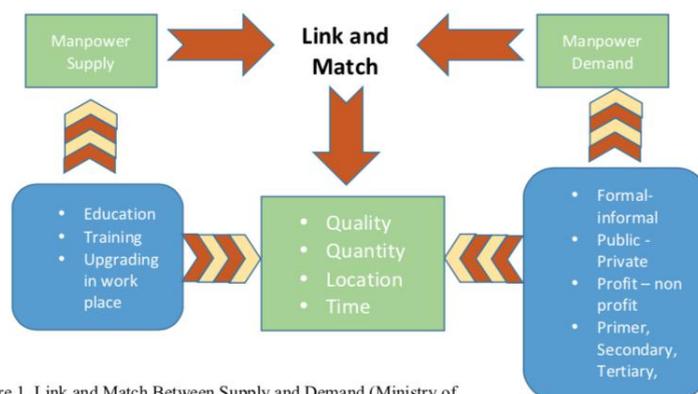


Figure 1. Link and Match Between Supply and Demand (Ministry of Manpower and Transmigration, 2010)

Teach entrepreneurship to learners of vocational education through knowledge, awareness, and actual practices about entrepreneurship. Learners should be taught about the characteristics of successful entrepreneurship as follows. At least, there are two types of entrepreneurial characteristics or dimensions: (1) the basic qualities of entrepreneurship, which include the quality of thinking power, *qolbu*, and physical power; and (2) the instrumental quality of entrepreneurship, i.e. mastery across disciplines (Slamet, 2010).

BUILD OF COMPETITIVE VOCATIONAL HIGH SCHOOL GRADUATES

Wading in the ASEAN Economic Community (AEC), Indonesia has a big challenge to reach Mutual Recognition Arrangement (MRA). Moreover, this goal requires a synergy of all human resources development institutions start from executive authority until educators (education), job training, competencies and certification bureau, and industry where human resources quality improvement efforts can be reached with a synergy between government, business, and academia to establish competency standards of professionalism in each sector (Figure 2).

Efforts to improve the quality of human resources to compete in the face of the AEC should be undertaken in order to achieve progress and catch up with other countries. Along with the position and the role of labour is significant in the implementation of national development, the momentum of the enactment of the AEC should become national agenda in managing the problem of employment as stipulated in Law No. 13 of 2003 on Manpower eligible for consideration as a legal umbrella in improving the quality of labour generally in line with human dignity. The new paradigm of labour quality improvement rests on three main pillars, namely the work competency standards, competency-based training and competency certification by an independent institution.

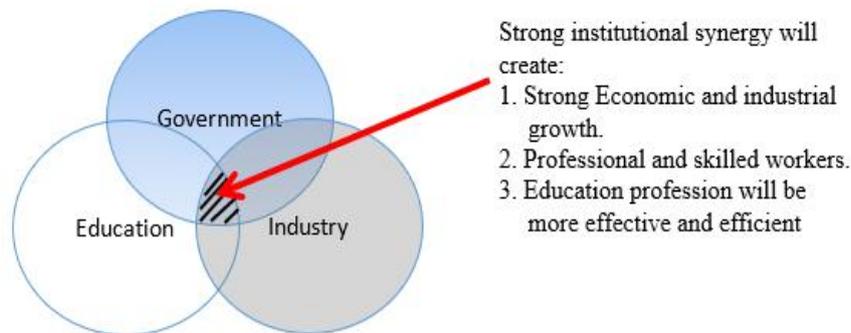


Figure 2. Institutional Synergy of Human Resource Development Adopted from World Bank (2012)

The synergy of the three institutions is significant for human resource development as a condition to train and prepare individuals into professionals who can compete in the AEC era. The benefit each other with this synergy are mutually enhance the quality of education and training process, so that the quality of graduates will have the complete competence and ready to enter the world of work both domestically and within the ASEAN region. Besides, other benefits derived from the synergies of the three institutions are the curriculum of VHS will very up to date and relevant to the world of work, equipment and practices used in the educational process to support the development of students' abilities, and will increase the learning process.

In this synergy scheme, businesses/industry are given enough space widely by educational institutions to better participate in the whole process of education planning, exercising education, assessment, and certification of vocational graduates. Furthermore, the government than as regulators, governments also act as a supervisor and a controller whether regulation is executed or not by the world of education and business/industry.

CONCLUSION

Vocational education plays a crucial role in economic development if its alignment with the world of work around it is endeavoured continuously, both in the dimensions of quantity, quality, location, and time. Vocational education will also play a leading role in economic development if it can integrate its programs with the existence of regulation, policy, planning, and government budgeting in the era of regional autonomy as it is today.

REFERENCES

- Asian Development Bank. (2009). *Good Practice in Technical and Vocational Education and Training*. Manila, Philippines: ADB
- Becker, G.S. (1964). *Human Capital*. New York, NY: National Bureau of Economic Research.

- Boediono & McMahon. (2001). *Development of Education to Support Economic Growth. Agency for Research and Development*. Jakarta: Ministry of Education and Culture.
- Ministry of Manpower and Transmigration. (2010). *Alignment of Education, Training with the World of Work*. Jakarta: Ministry of Manpower and Transmigration.
- Nasir, S. B. (2012). Strategy to Revitalize Technical and Vocational Education and Training (TVET): Management Perspectives. *Global Journal of Management and Business Research*,12(23):11-14.
- Psacharopoulous, G. (1986). *Education for Development: An Analysis of Investment Choices*. Washington, DC: The World Bank.
- Psacharopoulous, G. (1987). To Vocationalize or Not to Vocationalize: That is the Curriculum Question. *Internationale Review of Education*, 33(2), p.187-211.
- Psacharopoulous, G. (1994). Returns to Investment in Education: A Glossary Update. *World Development*, 22 (9), 1325-1343.
- Psacharopoulous, G. (1997). Vocational Education and Training Today: Challenges and Responses. *Journal of Vocational Education and Training*, 49(3), 385-393.
- Slamet PH. (2010). *Entrepreneurship. Upgrading School Supervisor Papers*. Jakarta: Ministry of National Education.