

The Role of Education System Design in Maximizing Human Capital Output

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Abstract

Human capital is something that needs to be considered in every organization, both for profit organization and non-profit organization. It is education that can make human capital experiences developing. Education system takes the most important part to build a more productive human being who is able to develop his abilities. Furthermore, education system is optimally developing the human capital when it reaches, first, is being focus to keep up the vision as well as its potencies, then it should have been internationalizing its quality in order to develop human capital. Besides, it also needs to conduct a kind of student-centered learning and involve some community fellows to increase the quality state of its education.

Introduction

Education is a process of educating people to live his life intelligently. Under the law on the National Education about the objective of education of article 3, to prepare the students to become faithful in God Almighty and to having strong moral character, to become hale, intelligent, capable, creative, and to become democratic person who always keep their responsibilities as a citizen. In achieving all of that, the whole component of education system should work together as it is organized.

Seen as a system, education should be characterized comprehensively and holistically at the same time. Seeing education as a system, we do not decide one component of education is more important than the others. Therefore, succeeding the education means running the whole components of education system optimally.

Recently, every organization, both business-based and educational-based organization, are extremely competitive. One of the most important things to keep the organization exists in between that competitive side is human capital. Investing for human resource become the most powerful weapon, so that the organizations keep remaining their power.

Both training and education are to increase human capital in value. Regarding to the economic value, education is such a profitable investment since education tend to make employees become more productive in terms of jobs doing. Schultz, 1961; Denison, 1967; Becker, 1964 in Valiente (2014:42) stated that "*The central premise of human capital theory is that investment in education and training is a key driver of economic growth*".

Knowing how important is human capital in keeping the existence of an organization, the role of education system as a bowl of human capital development needs to be maintained. This writing will interpret the way to prevail the organization optimally so that the products of human capital can be applied there.

Framework of thinking

1. What is human capital?
2. How do we run the organization system optimally in terms of human capital?

Objectives of writing

1. To understand the terms of human capital.
2. To understand the optimality of education system in terms human capital.

Discussion

1. Human Capital

Some statements related to the definition of human capital are revealed by some experts. Becker (2002) in Ployhart (2004) stated that, "Human Capital refers to the knowledge, information, ideas, skills, and health of individuals". Youndt and Snell also reveal, "Human Capital simply refers to individual employees knowledge, skills and expertise". Besides, Baron (2013) concluded that the concept of human capital produces more ability of employee (human) given to the organization they have been working for.

Characteristics of human capital that is really important to company or organization are adjustability and creativity of an individual, the ability to elevate their long-term skill and to give respond to any situation. Spreading those positive mental activities is definitely putting effort through attending lessons and trainings. Human capital is one of intellectual capital former, besides social capital and organizational capital formers too.

As it is related to economic value especially for an investment, therefore, human capital investment will help the organizations keep developing to answer the demands. Elizabeth Asiedu (2014:40) generally stated that economic growth has been related to human capital and investment rate. The better human capital of each region, the better its economic growth. The result of his research concluded that, "Aid in primary education has a positive and significant effect on growth". For that reason, to achieve the successes especially economic field, human capital is definitely required.

2. Role of Education System for Human Capital

To ensure the maximum role of education system for the sake of human capital, at least it can be accomplished by considering these four requirements below:

- a) Education system should remain keeping its visions and institution potencies.

Basically an effective education system is where it can maximize its all potencies to achieve the visions. Supardi stated in 'Muhammad Nurdik' (2016:94), "Effective schools are those that has ability to utilize every supported component of school, either for internal or external, as well as those that has a good management system running, it should be transparent and accountable for reaching school's vision-mission-goal effectively and efficiently". Those will definitely build a well-qualified school.

To achieve such a well-qualified and standardized education, the system must have future oriented vision. Visions are arranged based on deep analyses related to institution potencies. Considering and analyzing the internal and external factors of the institution, plans are arranged to make the vision achieved. The strategic planning arrangement of achieving vision can be executed by analyzing its strength and weakness, as well as chances, challenges, or obstacles faced by the organization. This way of analyzing is called as SWOT or SWOC analysis.

Head of institutions should consider putting much effort to exploit the potencies that literally remain on the institution in order to make it succeed. Institution should have such featured programs that characterize it among other institutions. It is not such an easy to hit the obstacles and make a program is featured. Kruss (2015:30) revealed that Universities need to focus more on what their own capabilities are; how they capture their own tacit knowledge more effectively; and how they develop their capabilities more strategically, in relation to priority sectors that match their expertise, hether in their immediate contexts or nationally.

In order to prove the visions, education system should be continuously innovated. Furthermore, it is easier for people to build an innovation when they are well-educated. In that case, upgrading the education levels for all school administrators including the teachers are needed to lift them to be innovating. Pillay stated in Kruss (2015:22) that higher education level and innovation are correlated, as in his statement "Whilst there are studies that point to correlations between higher education and innovation".

The whole teachers and administrators in school must always be innovated doing their job to get the best result of work. Being able to innovate in everything we do is also determined as innovative working. Schweizer as in Uhar (2016:202) formed three characteristic of innovative working as self-confidence, perseverance/ assertiveness, proactivity, extraversion dan competitiveness. Every teachers and administrators in school should hold those characteristics in their job.

- b) Ability of internationalizing the quality of education

To get through this global competition, an education system should be internationally standardized. One of the indicators of the international standard is that the education system should have graduated alumni that are

certifying equivalently international. By being internationally certified will give a way to the students to be able to compete the students of other countries. The research of Clemente (2015:3) results First, the Latin American universities should promote initiatives that encourage activities leading to a substantial participation in the internationalization process. Secondly, in addition to these initiatives of internationalization, they should head efforts towards the promotion of the accreditation and certification of institutions and their programs using international standards of quality.

To be internationally qualified, education system should consider a bunch of international regulation such as quality standard, the relevance towards international demand, and some international values to run the field. Cappola in Clemente (2015:2) interpret internacionalization in terms of education as in the picture below:



Picture 1 Internasionalization Aspects, Capolla (2010) in Clemente

Heads of institutions play the most important role to elevate the institution quality through several ways below:

- 1) Possessing integrated vision for the sake of the institution.
- 2) Possessing clear commitment to lift its quality.
- 3) Communicating the determination of its quality.
- 4) Considering the demands in making regulation and running the institution.
- 5) Mind every step that he takes in making decision and not to blame anyone without knowing the truth while facing problems.
- 6) Being the former of innovation in running the institution.
- 7) Keeping the commitment when there are many obstacles he has to overcome, either organizational or cultural problem.
- 8) Building up a great team that is able to do the related job effectively.
- 9) Developing appropriate mechanism in supervising and evaluating the institution successfulness.(Sallis 2010:173-174)

In order to compete against other countries, students need to be going global by understanding international language that is officially spoken to connect people around the world. The ability of using international language for every language skill, will take the students into international network and getting great opportunities to compete others. Clemente (2015:2) stated that student must be aware of the importance of expressing themselves in a foreign language, learn and use another language as a means of communication to the globalization in which we currently live.

c) Maintaining students-centered learning environments

A good learning should be fun. It should be oriented to the students (Student Center Learning). Through SCL, students are learning for what they needed and also what they wanted. In that case, teachers and lecturers are only working as the facilitator. They also would provide the students to work in a group or through cooperative learning.

SCL will also make students become independent learners. An independent learning system helps the students to learn as much as their ability as well as helps them to develop their selves. Independent learning is a learning process that needs self-planning, self-supervision, and self-assessment to acquire the knowledge. Siminica dan Traistaru (2013:2) declared self-directed learning in education emerges as a central construct, designed to be the means through which a human being adapts to external reality in permanent transformation, but even more the purpose of self development and personality development.

Whenever teachers or lecturers are applying cooperative learning (group-based learning), it drives the students to communicate each other. Learning together in a group builds an interactive communication among the students as well as between the teacher and the student. Besides, it also helps the students to build their self-esteem that makes them expressing their opinion confidently.

As in Venkatamaran and Sivakumar (2015) stated, group-based learning can improve students' engagement through working cooperatively. "Group-Based Learning is student-centered approach to give confidence among learners to work together and cooperate with everyone. Students work and cooperate among themselves, helping each other to achieve the group goal, and receive a group performance score". Basically, learning is a dialogue instead of imparting information or transferring knowledge only. Freire dalam Dharma Kesuma and Teguh Ibrahim (2016:185) revealed that education is not a matter of transferring the knowledge, it is more about collaboration among subjects of dialogue involved in object significance searching also the process of thinking and understanding.

One best thing of cooperative learning is that it can boost student's learning motivation. Through their research Venkataraman and Sivakumar (2015) concluded that "This approach of group based learning through e-learning has straighten a good feedback from the students and teachers. This group based learning will overcome the student's bashfulness and motivates them to socialize with others". Students with the great learning motivation will definitely increase their achievement.

The expansion of information technology brings out online-based learning then it becomes consideration of learning choice. E-learning is a breakthrough in organizing an effective learning. Students are able to join the lesson that fits them the best in terms of time and learning methods yet they still can get the best result. Shopova in Venkatamaran and Sivakumar (2015:1742) stated that "E-Learning became an important instrument in the new Higher Educational Environment in the digital age which creates student-centered learning and educational practice, offering new more flexible learning methods".

d) Getting the community fellows involved to improve education quality

As a system, education will be affecting as well as affected among the systems that works on it. Parent as one of supporting part of education must not be neglected. They help the students to achieve either students-self's vision or institution's. In the effort to build up such a high-quality education is definitely needed a well understanding of education management knowledge for all institution administrators that works to manage the institution.

Applying a good management in education needs community fellows involvement to support. The optimal result in applying the management in education for school is not coming if it is lack of community fellow support. This is suitable with the research outcome conducted by Muhammad Nur and friends (2016:102) that, "Hambatan dalam perencanaan program sekolah, yaitu partisipasi masyarakat dan kesulitan ekonominya sehingga dukungan mereka terhadap manajemen sekolah ikut rendah". All challenges during school program planning such as community fellow involvement and their financial problem drives them having lack of support to participate in the school management.

Community fellow participation can be improved by applying School-based Management. Besides, participation of the community fellows builds great responsibility among the community towards the school. Furthermore, as triple centered education, community fellow will always be engaged to the education system.

Considering those four points above, it is expected that education will gain the high quality result in the end. Jamaris (2013:10) explained in a simple way, to build up education with high quality result, therefore an institution should provide reliable service that match the demand or beyond education customer expectation.

Conclusion

Based on the discussion above it can be drawn into several conclusions below:

1. Training and education with the good quality result are needed to improve human capital.
2. A high-quality education should meet these four requirement; a) education system remains keeping its vision and institution potencies; b) the ability of internationalizing the quality of education;c) maintaining students-centered learning environments; and d)getting the community fellows involved to improve education quality.

Suggestion

Suggestion is always required somehow, these are some suggestions related to the research doing:

1. It is expected to every organization to put all efforts in terms of developing human capital or investing on it.
2. Every employee and staff are also required to develop their competencies for what they do.
3. Heads of the education system should always consider to improve the quality of education system in order to develop natural human resource that is internationally competitive.

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References

- [1] Asiedu, Elizabeth (2014) Does Foreign Aid in Education Promote Economic Growth? Evidence From Sub-Saharan Africa. *Journal of African Development (JAD)*. Vol. 16 # 1
- [2] Baron, Angela dan Armstrong. (2013) *Human capital Management Konsep dan Implementasi* Penerjemah Lilian Juwono. PPM. Jakarta
- [3] Clemente, Asuncion Coutino (2015) Internationalization and Certification as A Strategy of Quality in Higher Education. *Weber Educational Research & Instructional Studies*. Vol. 1 No. 6
- [4] Jamaris, Martinis. (2003) *Orientasi Baru Dalam Psikologi Pendidikan*. Ghalia Indonesia. Bogor.
- [5] Kesuma, Dharma dan Ibrahim, Teguh (2016) *Struktur Fundamental Pedagogik Membedah Pemikiran Paulo Freire*. Refika Aditama. Bandung
- [6] Kruss, Glenda, McGrath, Simon, Petersen, Il-haam dan Gastrow, Michael. (2015) Higher Education and Economic Development: The Importance of Building Technological Capabilities. *International Journal of Educational Development*. Vol 43 Hal 22-31
- [7] Nur, Muhammd., Harun, Cut Zahri dan Ibrahim, Sakdiah (2016) Manajemen Sekolah Dalam Meningkatkan Mutu Pendidikan pada SDN Dayah Guci Kabupaten Pidie. *Jurnal Administrasi Pendidikan Pascasarjana Universitas Syah Kuala*. Vol. 4 No. 1 Hal 93-103
- [8] Ployhart, Robert. E., Nyberg, Anthony J., Reilly, Greg dan Maltarich, Mark.A (2014) Human Capital is Dead; Long Live Human Capital Resources!. *Journal of Management*. Vol 40 No. 2 Hal 371-398
- [9] Sallis, Edward (2010) *Manajemen Mutu Terpadu Pendidikan*. Alih Bahasa Ahmad Ali Riyadi dan Fahrurrazi. IRCiSoD. Jogjakarta
- [10] Siminica, Marian dan Traistaru, Aurelia (2013) Self-Directed Learning Economic Education. *International of Educatioan and Research*. Vol 1 No. 12 Hal 1-14
- [11] Suharsaputra, Uhar (2016) *Kepemimpinan Inovasi Pendidikan*. Refika aditama. Bandung
- [12] Undang-Undang Sistem Pendidikan Nasional No. 20 Tahun 2003
- [13] Valiente, Oscar (2014) The OECD Skills Strategy and The Education Agenda for Development. *International Journal of Educational Development*. Vol. 39 Hal 40-48
- [14] Venkataraman, Sivakumar dan Sivakumar, Subita. (2015) Engaging Student in Group Based Learning Through E Learning Technique in Higher Education System. *International Journal of Emerging Trends and Science and Technology*. Vol.2. Issue 1. Hal 1741-1746.