Mapping and analysis of supply side policies in the alignment of education with industry in Indonesia

Rakhma Oktavina*, Faculty of Industrial Technology, Gunadarma University, Depok, Jawa Barat, 16424 Indonesia.
Ainul Haq, Faculty of Industrial Technology, Gunadarma University, Depok, Jawa Barat, 16424 Indonesia.

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Abstract

The purposes of the mapping and analysis of supply side policies are to evaluate policies related to the fulfillment of workforce (supply side) related to the education system. Mapping and analysis was done by adopting the RegMAP (Regulatory Mapping) methodology and Analytical Hierarchy Process (AHP) approach. Verification is carried out at formal vocational education and non-formal education (training and courses). Impact analysis was used to generate recommendation to improve the effectiveness of policies in accordance to the work force demand.

Keywords: alignment, supply side, policies, analytical hierarchy process, regulatory mapping.

*ADDRESS FOR CORRESPONDENCE: Rakhma Oktavina, Faculty of Industrial Technology, Gunadarma University, Depok, Jawa Barat, 16424 Indonesia. E-mail address: oktavina@staff.gunadarma.ac.id/ Tel.: +62-818-931-588
1. Introduction

Indonesia's national education development aimed to achieve equitable education, quality and relevant to the needs of the community. It is because unemployment is still relatively high in Indonesia, so that the government and other interested parties have to formulate a comprehensive framework with respect to various internal and external conditions that could increase alignment between education and the world of work (Ministry of National Education, 2010).

The purposes of the mapping and analysis of supply side policies are to evaluate policies related to the fulfillment of workforce (supply side) related to the education system. The review is devoted to formal vocational education and non formal education (training and courses), since both types of education is a kind of education in direct contact with the world of work.

2. Research Method

The process of evaluation and mapping the supply side policies that contribute to the alignment of education and the world of work was done by adopt the methodology RegMAP (Regulatory Mapping) which was socialized by National Development Planning Board (2009).

Identify the value chain and consultation with stakeholders conducted to determine the condition of existing education regulations in Indonesia. Phase identification was done through the condition of existing secondary data from government documents and primary data in the form of interviews in the field. This phase is carried out in the Semarang City, as a city of education center in Indonesia. This research used the Regulatory Impact Analysis (RIA) and Analytical Hierarchy Process (AHP) using the concept of pairwise comparisons. Impact analysis was used to generate recommendation to improve the effectiveness of policies in accordance to the workforce demand.

3. Results and Discussion

3.1. Inventory Policy Regarding Education in Indonesia

Collection of management policies on education through in depth interviews to education stakeholders, including government and the Institute of Education (vocational schools, Universities, and Institutions of courses and Training). The results of the inventory of the formal vocational education policy which is determined in Indonesia shows that there are 9 of the law, 16 government decree, 7 presidential regulation, 9 presidential decree, 2 instruction of president, minister of national education regulation 30, 11 minister of national education decree, and 1 local regulation. Policy for non formal education (courses and training) refers to two laws, two government regulation, and 5 the minister of national education regulation, and 2 local regulation.

3.2. Identify Problems In Alignment Of The World Of Work and Education

The instrument which was used to formulate the main problems is eight national education standards, including content standards, process standards, competency standards, standards of teachers and education personnel, facilities and infrastructure standards, standards of management, financing standards and assessment standards. Problem identification process was done by using Analytical Hierarchy Process techniques to produce priroritas issues to be studied more deeply, as seen as the following figure.
Based on the AHP is known that the sequence of the priority issues in the city of Semarang is a management standard (24,1%). Standards covering management education program planning, implementation plans, monitoring and evaluation, school leadership/courses, management information systems, and special assessments. The hierarchical structure policies considered most relevant to the problem as shown in the following figure.
3.3. Regulatory Mapping of Education Policy

RegMAP consists of seven categories namely basic statement of law, the purpose of policy interventions, policy alternatives, effective, communication, and compliance seerta impact. Furthermore, the mapping indicates that the criteria are considered the most influential proponents of the alignment of education and the world of work in the city of Semarang is that the institution / institutions that will implement this rule has been stated clearly, so that the rules can be achieved with minimum burden to be borne by the target group, and does not pose an unnecessary burden (extra) for the non-target (negative externalities).

Besides, if seen from the structure of policies ranging from the center regulations to the local regulation, it is needed the synchronization of policies, especially related to education. For example, the National Education Standards discussion about formal (vocational) education and Non Formal (Course and Training), from Law No.20/2003 to the Local Regulation No. 1 / 2007, then there is some problem that has not been synchronized. Also based on an analysis of the dimensions of quality, quantity, location and time, then the policy map for each dimension can also be seen in table 2 and 3.

3.4. Impact Analysis for Education Policy Toward Alignment of Education with the World of Work

The results of in depth interviews with sources show that the impact of the implementation of the policy on the management of education in the city of Semarang is the form of the positive and negative impact on the education unit. Both positive and negative impacts are divided into two perspectives, namely the economic and social impacts. The goal of these impacts may include increased quality and quantity of graduates and education units, as can be seen in Table 4.
Based on the mapping and in depth interview about the impact of the implementation of educational management standards, it was needed policies’s improvement from local level to national policy, such as coordination and confirmation of implementing the policy, i.e. the position and role of institutions and agencies related to the implementation of educational policy, especially to sectoral education (manufacturing industry, agriculture and trade services, tourism and hospitality), especially for courses and training institution. In order to streamline the implementation of education policy in Semarang city, it is needed the synchronization of the national policy and local policy. For example Regulation of Domestic Affair Minister on autonomy of the educational affairs Regulation of National Education Minister was not in sync with the standards of education funding. In Regulation of Domestic Affair Minister mention of local autonomy in matters concerning education, but does not touch Regulation of National Education Minister, so that there is no clarity on the implementation of education funding, such as the development of the curriculum.

Policies of education in the city of Semarang (Local Regulation No. 1 / 2007) should be revised in accordance with the policies in force at the central level (Gov. Regulation No. 17 / 2010 concerning the management and delivery of education, as well as Gov. Regulation No. 60 /2010 regarding changes in Gov. Regulation No. 17 / 2010), due in part to the policy / legal basis was not applicable (Gov. Regulation No. 29 / 1990 on High Shool), Gov. Regulation No. 39 / 1992 on Community Participation in Education, Gov. Regulation No 73/ 1991 of Informal Education, Gov. Regulation No. 38 / 1992 on Educational Personnel.

Another recommendation based on impact analysis is studied more deeply about policies regarding cooperation between education and the world of work units in terms of the
absorption of graduates, the provision of facilities and infrastructure, as well as the transfer of information and technology transfer are up to date, so that graduates established harmony between the world of work.

Table 4. Policy Implementation Impact

<table>
<thead>
<tr>
<th>Standard/Implementation</th>
<th>Type of Benefit</th>
<th>Type of Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>The content (curriculum, learning tool, academic order)</td>
<td>Graduate</td>
<td>National competency standards that are easily absorbed by the world of work</td>
</tr>
<tr>
<td></td>
<td>Education Unit</td>
<td>Improving the Quality of Education (Epidemic and the funding sector)</td>
</tr>
<tr>
<td>Priorities (syllabus, learning objectives, teaching materials, teaching methods, learning resources, assessment)</td>
<td>Graduate</td>
<td>Graduate have test the basic competencies, competence according to the needs, interests, and physical and psychological development</td>
</tr>
<tr>
<td></td>
<td>Education Unit</td>
<td>The efficiency of the student because it was well planned</td>
</tr>
<tr>
<td>Graduates Competencies (competence across subjects or groups of subjects or groups of subjects)</td>
<td>Graduates get education with academic and pedagogical qualifications, personal, professional, and social.</td>
<td>Cost of improving the quality of education and sometimes charged to the cost of education on the achievement of student learning</td>
</tr>
<tr>
<td>Teachers and Education Personnel</td>
<td>Education Unit</td>
<td>Enhance brand image and competitiveness of education units for a particular competency</td>
</tr>
<tr>
<td>Infrastructure (land, classrooms, laboratories, practice rooms, or any other facilities)</td>
<td>Graduate</td>
<td>The process that increases the quality and quantity of graduates become ready.</td>
</tr>
<tr>
<td></td>
<td>Education Unit</td>
<td>Increased educational unit investment cost implications for the cost of student learning</td>
</tr>
<tr>
<td></td>
<td>Graduate</td>
<td>The priority of management policy in the assessment of policy, i.e. the legal criteria, the goal of policy interventions criteria, policy alternatives criteria, accuracy criteria, communication criteria, compliance criteria, and impact criteria.</td>
</tr>
<tr>
<td></td>
<td>Education Unit</td>
<td>The mapping of the quality education unit and the basis of external funding</td>
</tr>
</tbody>
</table>

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5. Conclusions

(1) The process of inventory of supply side policies that contribute to the alignment of education and the world of work suggests that vocational education, training, and courses institution refer to national and local policies.

(2) Identification of supply side policies are based on the National Education Standards. The priority for educational in Semarang city is about management standards, with the weighting of 24.1%.

(3) The mapping process of educational management policy were based on seven criteria in the assessment of policy, i.e. the legal criteria, the goal of policy interventions criteria, policy alternatives criteria, accuracy criteria, communication criteria, compliance criteria, and impact criteria. Two priorities that deserve further study for the improvement of educational policy in order alignment of education and the world of work both at the national and local policy is compliance criteria (24%) and accuracy criteria (20%).

(4) The mapping indicates that the criteria are considered the most influential proponents of the alignment of education and the world of work in the Semarang city, that is statement
about the institution that would implement the rules, so that the rules can be achieved with minimum burden to be borne by the target group, and does not pose an unnecessary burden (extra) for the non-target (negative externalities).

References

