

Abstract

A Study on Analysis of the Labor Market Performance of the Korean Higher Education System and Its Improvement Strategies

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As OECD considers higher education reform to be a crucial national agenda in responding to socioeconomic changes, it supports its member countries' efforts to pursue higher education reform based on reviewing policies regarding labor market performance through [Enhancing Higher Education System Performance Project]. Planned in connection with this OECD activity, this study was conducted to address the following research questions; (1) What is the current status of the labor market performance of the Korean higher education system and what are its characteristics and problems? (2) What should be improved and how should it be improved in order to enhance the labor market performance of the higher education system? When addressing the second research question, the factors affecting the labor market performance are divided into national policy factors and internal institutional factors that influenced the process of carrying out the

tasks and their problems and issues were analyzed. This study is differentiated from the previously conducted studies which had only focused on employment outcomes. It defined the concept of labor market performance of higher education as competency outputs meaning cognitive and affective competencies accumulated by receiving higher education and employment outcomes directly related to employment or level of wage.

The content of study consists of three parts. First, this study analyzed the labor market performance of Korean higher education by utilizing domestic and international statistical data and survey data, especially the global indicators used for international comparative analyses in <Enhancing Higher Education System Performance Project>. Secondly, this study provided an overview of the policy project pursued by the government in order to enhance the labor market performance of higher education and analyzed the purposes, strategies, validity and suitability of the projects that provide higher education institutions with financial subsidies, along with detailed processes of implementation. Thirdly, internal factors within higher education institutions which influence labor market performance were analyzed in order to find implications as to what should be done by individual institutions for enhancing labor market performance. Finally, policy suggestions for enhancing labor market performance of higher education were made. The findings of the study are presented as follows.

Theoretical background

Chapter II has two parts. The first part provided an overview of the previously conducted studies which are directly and indirectly related to the current study and presented their relevance and differences. Since this study was planned under the direction of <Enhancing Higher Education System Performance Project>, this chapter introduced the sub-projects, such as 'OECD Higher Education System Performance Benchmark Project' and 'In-depth Analyses Project by Themes: Analysis of the labor market relevance and outcomes' and presented how these projects were reflected in this study.

The second part of the Chapter II introduced the conceptual framework of the study. The conceptual framework of this study was adopted from the main contents of the 'OECD Higher Education System Performance Model.' In other words, this study adopted the OECD's perspective which considers the extent to which socioeconomic needs are reflected in institutional objectives on the system level to be crucial in terms of higher education performance, although this study followed the basic system model consisting of input-process-output-outcome.

On the other hand, although the 'OECD Higher Education System Performance Model' includes 'activities' which is a process factor, the OECD project has not paid much attention to this factor. As this study focuses on internal factors within higher education institutions, the activities factor has been defined as educational activities to generate labor market performance of higher education. Institutional data was collected to identify characteristics and features of higher education institutions with better labor market performance and those with subpar labor market performance. The analysis was based on the sub-factors which influences institutional activities, such as visions/ objectives/ strategies, individuals, culture, skills (educational programs and teaching/learning) under the framework of organizational theory.

Analysis of the Labor Market Performance of Higher Education System

Chapter III analyzed the labor market performance of Korean higher education system with a focus on college graduates' competency performance and employment outcome. Three indicators of literacy, numeracy, and problem-solving in technology-rich environment which were included in the data of the OECD Programme for the International Assessment Adult Competencies were utilized in order to internationally compare Korean college graduates' level and aspects of competencies. Next, OECD statistical indicators such as employment rate, unemployment rate, status of economic activities and relative wages were utilized for multi-dimensional analysis in order to internationally compare Korean college graduates' employment outcome. In addition, the data from the Graduates Occupational Mobility Survey conducted by Korean Employment Information Service were analyzed in order to identify characteristics observed in Korean college graduates' employment outcome. The major findings are as follows.

First, the score of competencies of Korean college graduates aged from 24 to 34 was relatively lower than that of other countries' equivalent group in terms of the OECD indicators of literacy, numeracy, and problem-solving in technology-rich environment. In addition, compared with other countries, competencies differed greatly depending on the age group. In particular, the difference in competency scores of 4 year college graduates and technical college graduates was relatively bigger in the age group between 25 and 34.

Secondly, the result of international comparison between higher education graduates' employment outcomes using the OECD statistical indicators showed that employment rate and the rate of those who are economically inactive were relatively lower compared with other countries with similar economic profiles in terms of average GDP and annual economic growth. The level of wage for higher

education graduates was lower than that of OECD average as well.

Thirdly, the result of examining the characteristics of employment outcome by the level of completion of higher education using the data provided by the Graduates Occupational Mobility Survey demonstrated that there are socially higher barriers to enter into the labor market and that there is a higher proportion of four-year college graduates in jobs with good working conditions. However, in terms of full-time employment, the proportion of four-year college graduates was lower than that of technical college graduates. Four-year college graduates were more likely to be employed as non-regular workers in corporations with lower employment stability than technical college graduates. It was observed that the employment rate of higher education graduates seems to have been fixed over the last ten years.

Policy Analysis for Enhancing the Labor Market Performance of Higher Education

Chapter IV analyzed the trends, characteristics, issues and problems of government policies to enhance the labor market performance of higher education. Governmental policy analysis was carried out in two steps. First, in order to examine the overall policy, this study provided an historical overview of mid to long term higher education policies implemented by previous administrations. It examined administrative reports prepared by the Ministry of Education and resources including development plans for higher education in the mid to long term, and basic plans for projects to provide financial subsidies.

In order to analyze individual policy measures, expert forums were held with more than 30 experts ten times. In these forums, resources related to higher education and labor market were collected. The themes of these expert forums for policy analysis were 1) the main issues about higher education brought up by

the government and higher education institutions along with the validity of the direction of governmental policy that has been pursued in the mid to long term in order to enhance the labor market performance of higher education, 2) the contents of major strategies selected by the government in order to achieve the objectives of the policy and its propriety, 3) the adequacy of detailed programs devised to achieve the objectives of the policy (e. g. national projects providing financial subsidies, relevant regulations, information systems), 4) opinions as to the most effective policy and the least effective policy among labor market performance policies, 5) organic connection between projects within the ministry and among relevant ministries, and 6) suggestions for policy improvements. The major findings are as follows.

First, it has been pointed out that the biggest challenge that current higher education faces is that the demands of final customers have not been carefully considered. It is concluded that the problem cannot be solved by requiring higher education institutions to merely follow the demands of industry and the regulations prescribed by government-supported projects, although resolving the mismatch between higher education and labor market is one of the core policy projects. In order to address the quantitative and qualitative mismatch between higher education and labor market, higher education institutions should make more efforts to enhance the adequacy of curriculum and teaching methods in which socioeconomic demands are reflected.

However, higher education institutions should play a role as an innovative agent in vitalizing industry and labor market in order to actively respond to structural problems of domestic labor market and changes brought by scientific and technological innovation, which might require the basic direction of higher education and labor market policy to be steered.

Secondly, the governmental projects that provide higher education institutions with financial support have been implemented in order to achieve the policy

objective of enhancing the labor market performance of higher education since Young-sam Kim's administration. While these types of governmental projects received positive remarks thanks to the contribution to shifting the focus of higher education which used to be on institutional administration toward being student- and education-centered. negative evaluation was generally received as this policy made higher education institutions sensitive to government-led policy movements yet insensitive to changes in the labor market. The effectiveness of the policy was considered to be low because it made higher education institutions move in uniform depending on the policy direction which the government presented.

Thirdly, in order to examine the adequacy of government policies, the main strategic focuses of detailed policy programs and the possibility of addressing the problems that Korean higher education institutions are faced with in terms of the labor market performance were discussed. As a result, the major premise, which is that some projects should be considered strategically important within a bigger framework was found to be valid as demonstrated in national projects such as institutional specialization, industry-academic cooperation, enhancement of graduate employment rate, expansion of interdisciplinary educational programs, encouragement of employment rate and start-ups and field practice programs. However, it was concluded that improvement is still in need because many problems arose in the process of individual strategies being realized through the implementation of detailed policy measures.

Fourthly, higher education experts picked LINC, ACE, College Career Center, the Youth Worknet, Accreditation system of engineering education, NURI (New University for Regional Innovation), IPP (Industry Professional Practice) and work-learning experience as detailed policy measures that greatly influenced the labor market performance of higher education. They discussed their positive aspects that affected the labor market performance and their problems as well

and drew up projects for improvement.

Analysis of Institutional Factors on the Labor Market Performance of Higher Education

Chapter 5 tried to identify institutional factors of individual higher education institutions which influence the labor market performance with a focus on internal institutional factors that generate differences among various higher education institutions as various activities to enhance the labor market performance in higher education take place in the field. Higher education experts, college professors who hold administrative positions, experts who participated in designing and evaluating government policies attended a series of expert forums. Their opinions as to what the sub-factors that influenced institutional activities were, what the visible differences in terms of activities among institutions with higher labor market performance and lower labor market performance were, and what kinds of improvement projects were to be implemented in order to enhance the labor market performance of individual institutions were collected. Their responses were analyzed using the system dynamics method. The major findings are as follows.

First, the labor market performance of higher education on the institutional level turned out to be easily influenced by how suitable institutional objectives are for the labor market performance and how sensitive to the labor market performance institutional leadership is. Institutional objectives and leadership influenced the labor market performance by transforming the organization and system of higher education institutions.

Secondly, major organizational and systematic elements that positively influence the labor market performance on the institutional level were a new recruitment of professors and performance evaluation, curriculum and academic

administration, the existence of the department in charge of students' employment and start-ups. In addition, some negative elements that prevent these institutional efforts from being relayed to strengthening competencies for employment and improving the quality of employment were putting too much emphasis on short-term outcome of students' employment, superficial reform of curriculum for the sake of being able to participate in government-supported projects and excessive burden caused by the pressure of employment performance.

Policy Recommendations for Enhancing the Market Performance of Higher Education

Policy recommendations consist of three parts: 1) the basic direction for the policy, 2) strategies and 3) policy projects. First, the basic direction for the policy was recommended based on the basic principles drawn by discussing the findings of analyzing the labor market performance of higher education, policies on higher education and labor market, institutional factors that influenced the labor market performance. The basic directions for the policy to enhance the labor market performance of higher education are suggested as follows; 1) Strengthening autonomy and innovation initiatives of higher education institutions, 2) Strengthening consistency and connection of higher education labor market policies, 3) Shifting the designing and implementation focus of the policy toward consumer-centered problem solving.

Next, policy strategies to maintain in the formation of the higher education-labor market policy are suggested as follows; institutional specialization, industry-academic cooperation, supporting employment and start-ups and interdisciplinary education. Based on the findings of the analysis on the adequacy of strategies that the higher education-labor market policy adopted, some elements that need improvement were presented when strategies are applied in

the process of detailed policy measures being implemented. The detailed contents by strategies are as follows.

- Institutional specialization
 - Establish the concept of institutional specialization in various terms of the organization of academic departments, academic administration, curriculum and pedagogy and enhance their implementation and flexibility
- Industry-academic cooperation
 - Expand the function of education in terms of the industry-academic cooperation model
 - Substantialize field practice and reorganize relevant policies
- Interdisciplinary education
 - Encourage interdisciplinary education taking into consideration the quality of education and the characteristics of institutions and departments
 - Expand interdisciplinary education as a means to strengthen problem-solving competency
- Supporting employment and start-ups
 - Re-conceptualize the notion of the labor market performance of higher education and reform the indicators of performance
 - Reorganize the strategies of supporting start-ups with dual purposes, one with one focus on competencies and the other which encourages the creation of jobs

Finally, nine policy recommendations were presented. The first four policy recommendation should be conducted on the governmental leve and the latter five are more focused on higher education institutions. The latter four policy projects were organized with the discussion of factors affecting the labor market performance on the institutional level. Some discussion of visions/objectives/strategies,

institutional organization, its members, culture, and technological factors including education programs was reflected in these projects. The list of the policy recommendations is as follows.

Policy 1: Define the roles of higher education institutions-government-industry and establish the system of collaboration and connection

- Redefine the roles of higher education institutions and the central government and strengthening the role of the local government
- Establish the system of connection and collaboration between the government and higher education institutions in order to moderate their opinions

Policy 2: Establish the system of collaboration among the ministries regarding the labor market performance of higher education

- Moderate the roles of the relevant ministries in charge of the policy of higher education and labor market
- Strengthen the system of connection and collaboration in order to moderate policies among the ministries

Policy 3: Improve the system of generation-delivery-utilization of information regarding higher education and labor market

- Continuously provide information forecasting the mid-to-long term prospect of job availability
- Continuously generate quantitative and qualitative information regarding new jobs

Policy 4: Improve the system of generation-delivery-utilization of information regarding higher education and labor market

- Continuously provide information forecasting the mid-to-long term prospect of job availability
- Continuously generate quantitative and qualitative information regarding new jobs

Policy 5: Establish institutionally specialized strategies to enhance the labor market performance in connection with mid-to-long term development plans and use these for internal innovation of the institutions

Policy 6: Create the education-centered instructor personnel system with incentive measures

- Reform the personnel system to be focused on education and create an incentive system by improving the system of departmental evaluation
- Create the connection between educational activities and the labor market by encouraging undergraduate research and development of pedagogy

Policy 7: Reform the academic system in order to encourage interdisciplinary education

- Transform the current academic system into the flexible one that enables interdisciplinary education
- Establish the comprehensive system that develops student competencies through the connection between curricular and extracurricular activities from the perspective of consumers

Policy 8: Innovate teaching and learning in higher education reflecting technological changes

Policy 9: Innovate education by developing education programs connecting to local industry

Keywords: labor market performance of higher education, institutional specialization, industry-academic cooperation, interdisciplinary education, employment and start-ups, graduate competency, college financial support projects