

The Impact of Career Preparation Activities on University Graduates' Employment Quality

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진로 준비 활동이 대졸자 취업의 질에 미치는 영향

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Abstract This study aimed to analyze the influence of different career preparation activities on the employment quality of university graduates in South Korea. This study utilized data from the 2013 Graduates Occupational Mobility Survey(GOMS). The analysis of the data was performed through regression models. Results showed that studying abroad and participating in job training have a significant positive influence on both job permanency and monthly wage. Gender, age, and field of study positively influence all the chosen variables—job permanency and monthly wage. Maternal education only influences job permanency. Furthermore, GPA, paternal education, attending national public universities, career goal setting, and obtaining certificates were factors with significant positive effects on monthly wage. Based on the results of this study, suggestions for improving the quality of employment for university graduates were suggested. In universities, career preparation activities need to be further activated. The difference in employment of university graduates according to gender needs to be reduced.

요약 본 연구의 목적은 다양한 진로 준비 활동이 대학 졸업생의 취업의 질에 미치는 영향을 분석하는 것이다. 2013년 대졸자직업이동경로조사(GOMS) 자료를 사용하여 회귀 분석 방법을 적용하였다. 본 연구 결과, 해외 유학과 직무 교육 참여는 정규직 여부와 월 임금 모두에 유의한 정적 영향을 미치는 것으로 나타났다. 성별, 연령, 학업 분야는 정규직 여부와 월 임금이 긍정적인 영향을 미치는 것으로 나타났다. 어머니 교육 정도는 오직 정규직 여부에만 영향을 미치는 것으로 나타났다. 덧붙여 GPA, 아버지 교육 정도, 국립 공립 대학 재학, 진로 목표 설정, 자격증 취득은 월 임금이 유의한 정적 영향을 미치는 요인인 것으로 나타났다. 본 연구 결과를 바탕으로 대학 졸업생의 취업의 질 향상을 위한 제언을 제시하였다. 대학에서는 진로 준비 활동을 더욱 활성화할 필요가 있으며, 성별에 따른 대졸자 취업의 차이를 줄일 필요가 있다.

Keywords : Career Preparation, Employment Quality, University Graduates, Job Permanency, Monthly Wage

1. Introduction

The employment quality of university graduates in South Korea is a serious social issue. Companies,

especially small and medium-sized enterprises (SMEs), are experiencing difficulties in securing stable manpower, whereas university graduates are suffering from a lack of quality jobs. It is

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necessary to find ways to improve the working conditions for graduates to solve the problems that Korean companies, university graduates, and society as a whole are facing, driven by the decrease in both the rate and quality of employment.

Research on the impact of individual and school variables on labor market entry and career advancement of university graduates has been conducted to some extent [1-8]. However, not much is known about the impact of career preparation experiences—setting a career goal, studying abroad, obtaining certificates, attending job training—on university graduates' employment.

It is necessary to analyze how not only individual and school variables, but also variables related to career preparation activities impact quality employment of university graduates. Thus, this study aimed to investigate the influence of university graduates' different career preparation activities on their employment quality. Consequently, the research questions are: (1) How do different career preparation activities affect university graduates' job permanency? (2) How do different career preparation activities affect university graduates' wages?

2. Literature Review

Some studies have examined the impact of gender or field of study among various individual variables, on university graduates' employment [1-4,6-9]. Several studies have showed that gender has a significant influence on graduates' labor market outcomes [1-8]. Some studies found that male university graduates have higher wages than female graduates do [2-4,6-8], while other studies showed that female university graduates gain better employment than male graduates do [1,5]. Some researchers determined that field of study significantly determines the employment of university graduates [3,5-8]. Some of the studies indicated that engineering generated a higher

return than other majors[3,5]. In addition, several studies concluded that parents' education is an essential factor affecting university graduates' employment; students with highly educated parents had more occupational opportunities [10]. According to [4,7,8], grade point average (GPA) also substantially influences the labor market outcomes of university graduates.

However, a few studies found that career preparation experiences significantly influence university graduates' labor market outcomes. According to [4], if a career goal is set, and it affects the selection of a major, it appears to have a positive effect on the employment of university graduates. Some researchers found that studying abroad positively influences graduates' entry into the labor market [6-8,11-13]. A few studies concluded that obtaining certificates [4,6,14] or participation in training for a job [4,6,8] positively impact university graduates' employment.

3. Research Methods

3.1 Data and Measures

To achieve the aim of the study, the 2013 GOMS was used for data analysis. This study was performed on 9,518 graduates (out of 18,000) who obtained their first job after graduation. The ratio of females among the subjects was 45.0%, with the mean age of the whole sample being 26.7 years. As for university type, 67.5% were from four-year universities and 32.5% graduated after two years. Engineering was the most popular field, accounting for 30.7% of graduates, followed by the social sciences (19.3%), natural sciences (11.7%), and arts and crafts (11.5%). The dependent variables of this study were "job permanency," and "monthly average wage." Independent variables were "individual factors," "school factors," and "career preparation factors." The individual factors included gender, age, major, and parents' education. The school factors consisted of two-

or four-year universities, national public or private universities, and university locations. Finally, career preparation factors included career goal setting, studying abroad, participation in job training, and obtaining certificates. The specific description and statistics for dependent and independent variables are shown in [Table 1].

Table 1. Descriptions of Dependent and Independent Variables

Variables		Frequencies	Percentage
Dependent Variables	Employment Quality	Job Permanency Permanent Job: 1, Non-Permanent Job: 0	0.79 (0.41)
		Monthly Average Wage Monthly Average Wage (Ln)	3.45 (1.66)
Independent Variable	Individual	Gender Male: 1, Female: 0	0.55 (0.50)
		Age Age	26.76(4.64)
		Humanities and Social Sciences Humanities and Social Sciences: 1, Others: 0	0.39 (0.49)
		Natural Sciences and Engineering Natural Sciences and Engineering: 1, Others: 0	0.42 (0.49)
		Medical Sciences Medical: 1, Others: 0	0.07 (0.26)
		Arts and Sports Arts and Sports: 1, Others: 0	0.11 (0.32)
		GPA GPA	3.71 (0.40)
		Paternal Education Above 2-year College: 1, Below 2-year College: 0	0.41 (0.49)
		Maternal Education Above 2-year College: 1, Below 2-year College: 0	0.26 (0.44)
		School	National Public University National Public University: 1, Private University: 0
	Four-Year University Four-Year University: 1, 2-Year College: 0		0.68 (0.47)
	University Location Seoul, Kyunggi, and Incheon Areas: 1, Others: 0		0.47 (0.50)
	Career Preparation	Career Goal Setting Yes: 1, No: 0	0.44 (0.50)
		Studying Aboard Yes: 1, No: 0	0.12 (0.33)
Training Participation Yes: 1, No: 0		0.13 (0.33)	
Obtaining Certificates Yes: 1, No: 0		0.63 (0.48)	
Sum			100.0

3.2 Analysis

The data were analyzed using logistic regression and multiple regression. The logistic regression analysis was used to examine the factors influencing job permanency since it was a bivariate variable. The multiple regression analysis was used to investigate the factors affecting monthly wage. The analysis was conducted using the statistical processing program SPSS 22.0.

4. Research Results

4.1 The Impact of Career Preparation Activities on University Graduates' Job Permanency

In order to analyze the factors influencing the quality of university graduate employment, an examination of the factors influencing job permanency was performed, first on the whole group of graduates, then on the group who worked in companies with more than 500 employees ("large enterprise group"), and finally, on the group who worked in companies with fewer than 500 employees ("SME group").

The results showed that the analysis model groups are statistically significant ($B =$, $p < .001$). Among the individual factors of the whole group, gender, age, maternal education, and majors in the social sciences, natural sciences, engineering, and medical sciences were all found to have a significant positive influence on job permanency. Male university graduates are more likely to get a permanent job than their female counterparts, and the higher a graduate's age, the higher their likelihood of obtaining a permanent position. Furthermore, graduates from humanities, the natural sciences, and medicine have a higher probability of getting a permanent job. Maternal education above the college level also increases the likelihood of graduates obtaining a permanent job.

Among the individual factors of the large enterprise group, gender, age, and majors in the humanities and social, natural, and medical sciences had a positive effect on job permanency. Thus, the higher a graduate's age, the higher their probability of getting a permanent position. Male university graduates and those who majored in the humanities and social sciences, natural sciences and engineering, and medicine are also more likely to get a permanent job.

Among the individual factors of the SME group, gender, maternal education, and majors in the humanities and social, natural, and medical sciences had a significant positive influence on job permanency. As such, male university graduates and those who majored in the humanities and social sciences, natural sciences and engineering, and medicine are more likely to get a permanent job. Furthermore, maternal education higher than that of a university graduate increases the likelihood of graduates getting a permanent job.

Four-year university was among the school factors of the whole group that showed a significant positive effect on job permanency. This indicates that four-year college graduates are more likely to have a permanent job than those graduating from two-year colleges. The results also showed that none of the school factors had any significant influence on job permanency in the large enterprise group.

Among the career preparation factors of the whole group, studying abroad and participation in job training had a significant positive influence on permanent employment, indicating that the more experience university graduates have in studying abroad and participating in job training, the more likely they are to get a permanent job. For the large enterprise group, setting a career goal, studying abroad, and participation in job training were the career preparation factors that had a positive effect on job permanency. The results of these factors analysis are shown in [Table 2].

Table 2. The Result of The Impact of Career Preparation Activities on University Graduates' Job Permanency

Variables		Job Permanency					
		Whole Group		Above 500 Employees		Below 500 Employees	
		Exp(B)	Sig.	Exp(B)	Sig.	Exp(B)	Sig.
Constant		1.035	.917	.078	.000	2.049	.071
Individual	Gender	1.447	.000	1.543	.000	1.376	.000
	Age	1.023	.003	1.094	.000	1.002	.805
	Humanities and Social Sciences	1.710	.000	2.161	.000	1.629	.000
	Natural Sciences and Engineering	1.954	.000	2.178	.000	2.164	.000
	Medical Sciences	2.801	.000	2.859	.000	3.276	.000
	Arts and Sports						
	GPA	1.005	.942	1.033	.783	1.037	.675
	Paternal Education	1.054	.438	1.076	.504	1.054	.547
	Maternal Education	.845	.022	.908	.413	.806	.024
School	National Public University	1.072	.307	.977	.834	1.162	.084
	Four-Year University	.755	.000	.870	.237	.714	.000
	University Location	.908	.083	1.172	.091	.786	.001
Career Preparation	Career Goal Setting	1.111	.059	1.254	.012	1.054	.457
	Studying Aboard	1.337	.001	1.371	.012	1.347	.014
	Training Participation	1.490	.000	1.774	.000	1.365	.005
	Obtaining Certificates	1.076	.195	1.122	.205	1.020	.792
		.046		.047		.053	
		260.542(.000)		152.755(.000)		193.096(.000)	
		9.518		3.384		6.134	

4.2 The Impact of Career Preparation Activities on University Graduates' Wage

The analysis model of the factors affecting wage for the whole group, the group that worked in companies with more than 500 employees, and the group that worked in companies with fewer than 500 employees was statistically significant. Among the individual factors of the whole group, gender, age, medical science majors, GPA, and paternal education each had a

significant positive influence on monthly wage, whereas humanities and social sciences majors or arts and sports majors had a significant negative influence. As such, being male, or having a medical major, a higher age, GPA, and paternal education are correlated with a higher monthly wage. Among the individual factors of the large enterprise group, gender, age, medical science majors, and paternal education each had a positive effect on monthly wage, while humanities, social sciences, arts and sports majors all had a negative effect. Gender, age, natural sciences and engineering, medical sciences, GPA, and paternal education each had a significant positive influence on the monthly wage in the SME group. As such, GPA does not have a significant effect on monthly wages for graduates working in large corporations, but it does for those working in SMEs: the higher graduates' GPA, the higher their monthly wages.

National public universities, four-year colleges, and universities in the Gyeong-in and Seoul areas were the school factors of the whole group that had positive effects on monthly wage, indicating that graduates of national and public universities, graduates of four-year colleges, and graduates from universities in the Gyeong-in and Seoul areas have a relatively higher monthly wage. In the case of large corporations, attending four-year universities or universities in the Gyeong-in and Seoul areas has a positive effect on monthly wage. In the case of SMEs, there is a significant positive effect of attending public and private universities, four-year colleges, and universities in the Gyeong-in and Seoul areas on the monthly wage.

Among the career preparation factors of the whole group, career goal-setting, studying abroad, participation in job training, and obtaining certificates each had a significant positive effect on monthly wage. This result means that university graduates earn a higher monthly salary as they set career goals, participate in job training, and

attain certificates. In the case of large companies, it was found that career goal setting, studying abroad, participation in job training, and obtaining certificates each had a significant positive influence on monthly wage. This means that university graduates who work in large companies receive higher monthly salaries as they go abroad for education, participate in job training, and attain certificates. In the case of SMEs, studying abroad, participation in job training, and obtaining certificates each had a significant positive influence on monthly wage. This shows that studying abroad, participation in job training, and obtaining certificates are the factors influencing monthly wage across the three groups (refer to [Table 3]).

Table 3. The Result of The Impact of Career Preparation Activities on University Graduates' Monthly Wage

Variables		Wage					
		Whole group		Above 500 employees		Below 500 employees	
		Exp(B)	Sig.	Exp(B)	Sig.	Exp(B)	Sig.
Constant		-.085	.658	-.087	.048	.403	.025
Individual	Gender	.698	.000	.689	.000	.526	.000
	Age	.067	.000	.126	.000	.049	.000
	Humanities and Social sciences	-.241	.000	-.267	.000		
	Natural Sciences and Engineering					.151	.000
	Medical Sciences	.186	.006	.312	.021	.198	.002
	Arts and Sports	-.897	.000				
	GPA	1.005	.942	1.033	.783	1.037	.675
	Paternal Education	1.054	.438	1.076	.504	1.054	.547
	Maternal Education	.845	.022	.908	.413	.806	.024
School	National Public University	1.072	.307	.977	.834	1.162	.084
	Four-Year University	.755	.000	.870	.237	.714	.000
	University Location	.908	.083	1.172	.091	.786	.001

Career Preparation	Career Goal Setting	1.111	.059	1.254	.012	1.054	.457
	Studying Aboard	1.337	.001	1.371	.012	1.347	.014
	Training Participation	1.490	.000	1.774	.000	1.365	.005
	Obtaining Certificates	1.076	.195	1.122	.205	1.020	.792
		.180		.166		.159	
		125.049(.000)		40.558(.000)		69.397(.000)	
		9,518		3,384		6,134	

5. Discussion and Conclusion

When comparing the results of individual variables affecting the quality of employment for the entire group, gender and age were statistically significant variables affecting job permanency and monthly wage. GPA and paternal education were statistically significant individual variables affecting monthly wage. Similar to the results of previous studies [2-4,6-8], this study found that gender was a significant factor in the employment quality of university graduates. Age also proved to have a significant influence on the employment quality of university graduates, which is why older university graduates would have more experience. Similar to the findings of [4,7,8], this research determined that GPA was also a significant factor in the employment quality of university graduates. Furthermore, the inference that paternal education affected the employment quality of university graduates is in line with the results of [10]. Among the school variables, the national and public university variable was found to affect monthly wage. Further study is needed to understand why national public universities, unlike private universities in South Korea, have a positive effect on the quality of employment of their graduates.

Regarding the career preparation variables, career goal setting and obtaining certificates were statistically significant career preparation variables affecting wage for the entire group. Obtaining

certificates was a statistically significant career preparation variable affecting wage for the group with fewer than 500 employees. Consistent with previous studies showing that career goal setting [4] and obtaining certificates [4,6,14] positively influence the employment of university graduates, this study found that these two variables had a significant effect on wages. Studying abroad and participation in job training were statistically significant career preparation variables affecting job permanency and wages for the entire group. All the career preparation variables chosen by this study positively affected the employment quality of the university graduates.

Based on the results of this research, some suggestions for improving the employment quality of university graduates should be considered. Because career preparation activities have a positive impact on the employment quality of university graduates, universities in South Korea need to increase opportunities for their students to participate in such projects. This can be done by enhancing career preparation programs and including career preparation activities for students, such as career goal setting, study-aboard programs, career-training activities, and programs for certificates. Given the rising cost of job preparation for university students in South Korea, it would be meaningful to provide the students with various career preparation activities at their universities.

Recognizing that gender is a significant variable in the employment quality of university graduates, and that male university graduates have a higher employment quality than female graduates do, it is necessary to reduce the impact of gender on graduate employment.

This study analyzed the variables affecting the employment quality of university graduates in South Korea using quantitative methods. Qualitative research, based on an analysis of students' words and experiences, is needed to further understand how career preparation activities affect the employment quality of university graduates. Because

there are many countries in which low economic growth is affecting both the employment rate and quality of university graduates, international comparative studies between South Korea and other countries also need to be conducted.

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<Research Interests>

Vision, Competency, HRD