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STUDENT CHOICE IN HIGHER EDUCATION AND ITS IMPACT ON EMPLOYMENT: AN EVIDENCE FROM SARGODHA DISTRICT OF PAKISTAN

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HIGHLIGHTS

- According to the results, the education received from the private sector universities has a negative and significant impact on the employment of graduates.
- A student who graduated from the public sector university has a positive impact on employment.
- The result shows that by increasing one schooling year the candidate will have more chances of employment.
- Postgraduate experience has a positive and significant impact on employment.
- The selection of subjects on employments shows that sociology, IT & computer sciences, engineering, and management sciences have a positive impact on the employment of graduates.
- The subject of agricultural science has a negative and significant impact on the employment of a graduate while other things remaining constant.
- The student choices play an important role in employment so it is recommended that the students must take decisions after getting complete information.

ABSTRACT

The unemployment problem of fresh graduates in Pakistan has drawn attention towards the student choices in higher education and to find the impact of these choices on employment. The effects of institutional choices on initial employment along with the student major choices are estimated by using the primary data collected through the personal interview from graduates in district Sargodha. The binary logistic regression model was used to check the impact of different variables on the employment status of graduates. According to the results shown in the estimated model, the education received from the private sector universities has a negative and significant impact on the employment of graduates. While on the other side the person being graduated from Public Sector University has a positive impact on employment. The result shows that by increasing one schooling year the candidate will have more chances of employment. The impact of the number of schooling years on employment is positive and significant. Postgraduate experience is also positive and significant which shows that as experience increases the chances of getting employment increase. The results of the other variables of the selection of subjects on employments show that sociology, IT & computer sciences, engineering, and management sciences have a positive impact on the employment of graduates. The subject of agricultural science has a negative and significant impact on the employment of a graduate while other things remaining constant.

Keywords: Employment, higher education, student choice, Sargodha, Pakistan.

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Introduction

Over the past decade, the issue of unemployment has become an emerging problem for a large number of new university graduates and their

families in Pakistan. Several factors are interrelated that can play an important role in explaining the causes of a serious unemployment problem.

Responsible factors include the choice of university for higher education and the choice of subject or field for getting better job opportunities on completion of graduation.

Pakistani economy has done extremely well so far in terms of the increasing rate of job that has generally kept pace with the economic growth and growth in the labor force. However, Existing degree programs offered by the colleges and universities in Pakistan are excessively supply-driven and there is a gap between supply and demand according to the current market situation. Pakistani universities and policymakers tend to measure the impact of higher education on the number of graduates produced instead of employability and economic earnings (Cheema, 2014).

The economic slowdown and the gradual development of industry have significantly reduced the demand for labor to be absorbed, especially for those entering a new market with limited professional experience and non-productive productivity (Bai, 2006). In addition, integrated university study programs and low-quality University training that provide graduates with limited capacity growth and skill development during their studies may limit youth employment opportunities. Under these circumstances, finding a job shortly after graduation has become a major challenge for many students. Not to mention those who have never anticipated violent competition on the labor market and were very vulnerable. Even those who were lucky enough to find jobs after graduating from high school may end up with secondary (incompatible with their qualifications) jobs with prospects of a dangerous future and low pay.

Higher education institutions are required to explain the impact of university quality on the employment of fresh graduates and improve the effectiveness and efficiency of the institution. Also, getting an answer to a research question about whether attending better colleges would result in a better job decorating higher education. On the other side due to the saturation of the job market in Pakistan fresh graduates are jobless. It is the fact that Pakistan is a developing country and for developing country it is not ethical to use the word like saturation, because Pakistan has more potential in its every sector. Anyhow for the short term, there may be saturation in some major subjects that's why in some particular subjects it can be observed that more unemployment is present while there is a shortage in some other subjects. The current study

is aimed to conduct first to find out the saturation in subject areas i.e., first, to find the impact of major selection on employment status among fresh graduates and the second to find the impact of institutional choice on the employment of their graduates. For this purpose, the home institutions are divided into two categories as public sector Universities and private sector universities.

The current literature is mainly based on the theory of human capital to describe the impact of the quality of university education on future demands of labor markets. Human capital refers to, skills, knowledge, attitudes, forebears, and many other characteristics that are responsible for an increase in the production capacity of an accumulated employee through education and training (Becker, 1962). Consequently, education is an essential investment of time, expense, and lost earnings to achieve higher rates, both economic and non-economic in the future (Schultz, 1961). Graduates from high-quality colleges with greater human capital resources will be compensated by the labor market with healthier employment opportunities as they are preferred by employers.

Many studies say that the decision of a student about the selection of college and subject is based on an individual's cognitive ability (Carroll, 1993; Logaj and Polanec, 2011). Students choose those colleges which show a higher probability of better job opportunities and higher earnings in the future (Berger, 1988; Boudarbat, 2008). Besides, students choose different college majors according to their work ability, preference in the workplace, and future earnings forecast (Arcidiacono, 2004; Arcidiacono et al, 2010).

Previous research studies conducted on choice and quality of education and earning through employment supported that there was a positive relationship between education choice and future earnings since the late 1960s (Zhang; 2005; Pascarella and Terenzini; 1991). However, there are quite a few current research studies conducted on the choice of quality of education to explain the possible relationships between the quality of higher education and the demands of labor markets. Nonetheless, far from getting closer to the convergence on how large the quality of college education impact was, the recent empirical studies yielded miscellaneous results (Black & Smith, 2004; Dale & Krueger, 2002; Long, 2008; Zhang, 2012). These studies further explained the impact of university education on the probability of

employment and high-quality graduates of private institutions enjoyed the highest-earning premium.

The unemployment of college graduates has been of paramount concern to all governments and societies in the era of mass higher education. After the expansion of higher education, many empirical studies have highlighted the problem of unemployment among university graduates. For example, Chen and Tan (2004) selected a sample of students from south-central China and considered employment as professional achievement. They illustrated that college prestige had no significant impact on either job status or initial salary. Some researchers illustrate that increasing higher education has resulted in a large number of fresh graduates. This expansion is making the labor market more and more competitive, particularly during the global economic recession. Due to competition and saturation of job market graduates have been experiencing difficulty in finding jobs matching their knowledge and skillsets (Wang, 2003; Bai, 2006; Kim and Lee, 2006; Walker, 2007; Wu, 2011; Vedder et al., 2013; Lauder, 2014; Mok, 2016).

This study aims to find the different factors of student choice in employment. The variables used in the study is the choice of university and the selection of subjects for their studies. All these factors will be analyzed to find the impact of these choices on employment. In Pakistan, it is observed that the fresh graduates from higher education institutions of private sectors are less likely to be preferable for public sector jobs. So, the students prefer public sector universities for employment opportunities in the future. On the other side, most of the students do not get complete knowledge about the scope of the subject in which they are going to continue their higher education. Lack of proper guidelines and career counseling, student make wrong choices. This study is aimed to check the impact on student choices on employment.

Methodology

The current study underhand is conducted to estimate the impact of student choices on their job status. It is assumed that good decision in the light of education quality and related to the scope of the subjects is the main factor that determines the job status. Primary data were collected through the questionnaire from the fresh graduates in the Sargodha district. A total number of 410 fresh graduates were selected purposively from district

Sargodha. The minimum qualification of a respondent included in the sample was sixteen-year education. The completion terminal degree time was 5 years of graduation completion and was included only in the sample size. The purpose of the study underhand is to find the answer to a question that why a graduate after completing the graduation is unable to get the job according to his or her education. Job-status was taken as a dependent variable while independent variables include student choices about the selection of a university from the private and public sector and subject choices. The Binary Logit Model (Hosmer and Lemeshow, 2000) was used for analyzing the collected data. The binary logit model is used in a condition where the dependent variable is in qualitative form. The binary logit model is used in various studies to analyze the different factors on the employment status of graduates. These studies include (Xie and Zhao, 2009; Du and Yue, 2010) the equation of Binary Logit model as:

$$\text{Logit}(E[Y_i|X_i]) = \text{logit}(P_i) = \ln \left[\frac{P_i}{1-P_i} \right] = \beta_i X_i + e \quad (1)$$

Where;

P = Probability of a candidate to get employment (Y)

X_i = A set of core explanatory variables

β_i = A vector of unknown variables

e = Disturbance term

Dependent variable is Employment (1 for job holder, 0 for jobless) while independent variables are given below;

Age= No. of years

Education= No. of schooling years

Post graduate experience= No. of years

Agricultural sciences= 1 for Agricultural sciences, 0 for otherwise

English= 1 for English, 0 for otherwise

Sociology= 1 for sociology, 0 for otherwise

Math & Stat= 1 for Math & Stat, 0 for otherwise

Management sciences= 1 for management science, 0 for otherwise

IT & Computer Sciences= 1 for IT & Computer sciences, 0 for otherwise

Basic sciences= 1 for basic sciences, 0 for otherwise

Arts & humanities= 1 for arts & humanities, 0 for otherwise

Medical Sciences= 1 for Medical Sciences, 0 for otherwise

Engineering= 1 for Engineering, 0 for otherwise

Public universities= 1 for Public universities, 0 for otherwise

Private universities= 1 for private universities, 0 for otherwise

Results and discussion

The primary data were collected from 410 respondents. The summary statistics of the variables used in the estimated model are given in table 1. The minimum value, maximum value, the mean and standard deviation of both dependent and

independent variables are shown. Due to a large number of independent variable the multicollinearity issue was found in the results which were addressed properly. The multicollinearity was found in the variable of subject economics. When it was mixed with the business studies, this problem of multicollinearity was resolved. Secondly, the multicollinearity was found in variables of subjects of Urdu & Islamic study. It was also resolved by adding the Islamic study and Urdu into Arts and Humanities.

Table 1: Summary statistics of the variables of the study

Variables	Minimum	Maximum	Mean	Std. Deviation
Employment	.00	1.00	.3707	.48359
Age	21.00	34.00	25.7049	3.35776
Education	14.00	18.00	16.4585	.91148
Post graduate experience	.00	7.00	1.7293	1.85373
Agricultural sciences	.00	1.00	.1171	.32190
English	.00	1.00	.0634	.24400
Sociology	.00	1.00	.0780	.26858
Math & stat	.00	1.00	.1512	.35870
Management sciences	.00	1.00	.1463	.35388
IT & computer Sciences	.00	1.00	.0634	.24400
Basic science	.00	1.00	.1171	.32190
Arts & humanities	.00	1.00	.1415	.34892
Medical sciences	.00	1.00	.0098	.09841
Engineering	.00	1.00	.0268	.16178
Public universities	.00	1.00	.8146	.38907
Private universities	.00	1.00	.1146	.31897

Source: Author's calculation

The current study underhand used the Logit model estimated by taking employment status as a dependent variable against the independent variables listed in table 2. The Hosmer and Lemeshow's estimation test showed that the p-value was 0.515, which is non-significant which shows the model used was correctly specified. Cox & Snell R² was found 0.277 and Nagelkerke R² was 0.378 which showed that overall independent variables in the estimated model explain 27-38 percent variation in the dependent variable, which is a good explanatory power of the model (Cohen et al., 2013). The ratio of likelihood test was significant at 1 percent level, which indicated that

the estimated model had good explanatory power. It is worth mentioning here that home institutions were divided into two categories i.e., public sector universities and private sector universities.

According to the results shown in the estimated model, the education received from the private sector universities has a negative and significant impact on the employment of graduates. While on the other side the person being graduated from the public sector institution has a positive impact on employment. The result shows that a candidate has graduated from the public sector institution has 2.06 higher chances to get employment while keeping

other things constant. While a candidate having his graduation from a private university has 0.38 fewer chances to get a job. Here it is concluded that the

quality of education of public sector universities is better than private-sector universities.

Table 2: Impact of student choices on their employment

Variables	B	S.E.	Sig.	Odd Ratio
(Constant)	-17.629	2.529	.000	.000
Age	-.017	.058	.768	.983
Education	.998	.171	.000*	2.713
Post graduate experience	.212	.093	.023*	1.236
Agricultural sciences	-1.082	.490	.027*	.339
English	.625	.521	.230	1.869
Sociology	1.282	.474	.007*	3.603
Math & stat	.381	.410	.353	1.464
IT & computer sciences	1.079	.528	.041*	2.943
Basic science	-.245	.470	.603	.783
Arts & humanities	-.144	.449	.749	.866
Medical sciences	.425	1.069	.691	1.529
Engineering	2.028	.849	.017*	7.597
Public universities	.724	.364	.047*	2.062
Private universities	-.947	.373	.011*	.388
Management sciences	1.355	.426	.001*	3.878
-2 Log likelihood	Cox & Snell R Square		Nagelkerke R Square	
407.878a	.277		.378	

Significant at 95 % confidence interval: *

Source: Author's calculation

The variable of qualification of a graduate is taken in the total number of schooling years. The result shows that by increasing one schooling year the candidate will have more chances of employment. The impact of the number of schooling years on employment is positive and significant. According to estimated results as the schooling year of a candidate increases by one year, there will be 2.713 times more chances of employment of that candidate.

Postgraduate experience is also positive and significant which shows that as experience increases the chances of getting employment increase. A candidate having one unit increase in post-graduate experience has 1.236 times higher chances of getting a job. The results of the other variables of the selection of subjects on employments show that sociology, IT & computer sciences, engineering, and management sciences have a positive impact on the employment of graduates. A candidate who graduated in the subject of sociology has 3.603 times higher chances of

employment. A graduate specialized in IT & computer science has 2.943 higher chances of employment while other variables remain constant. The subject of engineering has 7.597 higher chances of getting a job while keeping other variables constant. The subject of agricultural science has a negative and significant impact on the employment of a graduate while other things remaining constant. The candidate has a degree in the subject of agricultural sciences has 0.339 fewer chances of employment.

Conclusions

According to the results shown in the estimated model, the education received from the private sector universities has a negative and significant impact on the employment of graduates. While on the other side a student being graduated from the public sector institution has a positive impact on employment. The variable of qualification of a graduate is taken in the total number of schooling years. The result shows that by increasing one

schooling year the candidate will have more chances of employment. The impact of the number of schooling years on employment is positive and significant. Postgraduate experience is also positive and significant which shows that as experience increases the chances of getting employment increase. The results of the other variables of the selection of subjects on employments show that sociology, IT & computer sciences, engineering, and management sciences have a positive impact on the employment of graduates. The subject of agricultural science has a negative and significant impact on the employment of a graduate while other things remaining constant. It is concluded that student choices play an important role in employment so it is recommended that the students must take decisions after getting complete information about the scope of subjects. It is also concluded that the home institution has also a significant impact on employment, so it is recommended that students must select the university based on quality factors of education.

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