Higher School of Economics

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What ensures successful employment and internship for the Senior Bachelor Students?

Thesis submitted for
the degree of Bachelor in
6B04102 Economics
6B04104 Finance

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Nur-Sultan 2021

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Abstract. It is generally recognized that university graduates' employability and education-job match are one of the main criteria for evaluating the effectiveness of an education institution. Therefore, each university tries to make every effort to support its graduates in finding jobs. Employability of graduates depends on many factors, external and internal, and personal attitudes are among the most important ones. The beginning of the career path is related to student's motivation, competitiveness, agility and some other soft skills besides their GPA and work experience. The study seeks to identify causality between various factors affecting employability and willingness to get a job with the data collected by the authors trough the online survey among Kazakhstani universities' graduates. Additionally we use the data provided by the National Chamber of Entrepreneurs "Atameken" on student's employability and future career prospects. The study reveals that the main contributors to the earlier employment of the recent university graduates are self-reported motivation and GPA, while study abroad and graduation year do not have a significant impact on it.

Introduction.

In uncertain and fast-changing business environment, education is particularly important for developing generic employment skills such as decision-making, problem solving, time management and communication, because these skills can accelerate employment among young people and graduates' employability.[1]

Improving the skills of graduates for employment is not a new topic, and both universities and policy makers constantly develop plans to improve the skills of graduates to meet the needs of the current employers. Higher education institutions are one of the key players in increasing employability of their graduates and their responsibility is to determine how they can improve the skills of the "future employees". Responding to enhancing pressure from the labor market, HEIs adopt their general learning outcomes based on skills that are expected to increase graduate employability and therefore improve

[1] Audu R., Yusri Bin Kamin And Muhammed Sukri Bin Saud (2013); Acquisition of Employability Skills in Technical Vocational Education; Necessity For The 21 st Century Workforce. Aust J Basic and Applied Sci. 7(6):9-14

their future labor market outcomes. Moreover, many universities already include internships, employment opportunities, and international training in their programs in order to improve the employment prospects of graduates. However, this somewhat instrumental approach to the employment of graduates does not take into account other critical factors such as the student's personal qualities, motivation, commitment, adaptability and active student life at the university.[2]

The analysis of employability of graduates of the bachelor's degree program, including education-job match, allows us to assess how much the knowledge and skills acquired in the course of studying at the university are in demand in the labor market, as well as to identify differences in the demand for competencies across various areas of training. Significant differences in the level of development of educational institutions and the labor market are one of the critical issues for Kazakhstan today. Especially, the impact of relevant working experience obtained during the study on the salaries of graduates and job satisfaction. According to the data from the National Chamber of Entrepreneurs "Atameken", the employment rate of graduates for 2020 comprised 71%, decreasing by 3% comparing to 2019 results.[3] Accompanying this, unemployment among young people aged 15-28 years is growing and stands at 449 thousand people in 2020. The issue is that unemployment becomes more educated: in comparison with 2019, last year, in terms of the level of education, the dynamics of the number of unemployed among people with higher and postgraduate education showed an increase of 20.7 thousand people (+14.2%), amounting to 165.9 thousand people.[4]

Empirical data from the National Chamber of Entrepreneurs "Atameken" regarding student's employability and future career prospects for 2020 provided the rating of High Education Institutions, conducted according to 17 criteria, including the share of employed graduates and their average salary. [5] (Table 1.) A high demand for higher education in Kazakhstan and the growing demand for specialists in

[2] Marilyn Clarke (2018) Rethinking graduate employability: the role of capital, individual attributes and context, Studies in Higher Education, 43:11, 1923-1937, DOI: 10.1080/03075079.2017.1294152
[3] https://atameken.kz/
[4] https://iac.enbek.kz/ru/node/1044
[5] https://atameken.kz/

the labor market cause the interest of society and individuals in accessible and reliable information about the quality of education in various universities.

№	Universities
1	M. S. Narikbaev KAZGUU university
2	Kazakh-British Technical University
3	KIMEP University
4	International University of Information Technology
5	Kazakh-German University
6	Suleyman Demirel University
7	Eurasian National University named after L. N. Gumilyov
8	International Education Corporation
9	Karaganda state University named after academician E. A. Buketov
10	Narxoz University

Table 1. Top 10 Universities of Kazakhstan
Source: www.atameken.kz

Literature review.

Correlation between completion of better-quality educational institutions and successful employment is not a new topic. Most global companies like Facebook, Goldman Sachs, McKinsey & Company hire staff directly from the campuses of top universities. Due to the high requirements and strong attention to academic integrity, acceptance and education at top universities are not feasible to every applicant. Indeed, more selective institutions, with their superior staff and leading resources, seem to have better academic quality, apparently with a two-way causal relationship between quality and selectivity, which should usually gain relatively more value to human capital productivity and lead to higher employment and wages, as assumed by the theory of human capital introduced by Becker, Minser and Schultz.

A good university provides students with an undoubtedly excellent theoretical knowledge and practical skills for their future careers. But other external factors affecting employment are also important, such as gender, academic performance, participation in academic mobility. Practically, employability is a result of the combination of these factors. Exploring and unraveling these factors is an important topic for both academics and policy makers.[6]

[6] Aremu, A. O. (2000). Academic performance 5 factor inventory. Ibadan: Stirling-Horden Publishers.

The main phenomenon is academic performance (GPA), which attract the attention of not only researchers, but also parents and employers. Since a high GPA may indicate a student's ability to work hard and study hard. In addition, proof of academic success is always required from the environment.

Since the student's interest in their specialty will motivate them to study hard and improve their academic performance, this implies improving their qualifications for further employment. Therefore, students should not make mistakes when choosing or changing a profession. The fallacy of the primary professional choice can be reduced in subsequent professional elections. This will have a negative impact on his achievements. The dynamics of the degree of effectiveness of professional training of students doubles if the applicant initially chooses the desired specialty.[7]

Gender is also one of the personal variables that can affect motivation and attitudes. Various experiments have shown that boys and girls have different attribution models, such as girls putting more effort into explaining their work[8], when boys are more likely to reason as a reason for their academic achievement[9]. Many studies also show that girls believe that success and failure are influenced by external factors, and when introducing internal strengths, they attribute more to ability than effort.[10]

An important third factor is an active student life. Scientific projects and the social life of the student also play key role, as well as study. This shows a student's personal abilities like organization, discipline, focus, which can be noticed by employers. The more the student is involved in extra-university projects, the more critical thinking develops. Students who are involved usually more advanced in other settings as well and have a better chance of successfully progressing towards their goals than those who are not active[11].

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[7] Panetsos, S., Attikis, N. I., Kostoglou, V., & Alexander, T. E. I. (2008). The employability of educational specialties: Design and implementation of a survey model.
[8] Lightbody, P., Siann, G., Stocks, R., & Walsh, D. (1996). Motivation and attribution at school: The role of gender. Educational Studies, 22(1), 13-25.
[9] Burgner, D., & Hewstone, M. (1993). children's causal attributions for success and failure:'Self-enhancing'boys and 'self-derogating'girls. British Journal of Developmental Psychology, 11(2), 125-129.
[10] Postigo, Y., Perez, M., & Sanz, A. (1999). A study about gender differences in solving scientific problems. Ensenanza de las Ciencias, 17, 247-258.
[11] Tinto, V. (2012). Completing college: Rethinking institutional action. University of Chicago Press.

The varying outcomes of employment success have become a phenomenon of interest to all and this account for the reason why scholars have been working hard to untangle factors that militate against good academic performance[12].

Academic achievement or scholastic functioning is a phenomenon that has been repeatedly mentioned in the literature. Because students 'academic achievement attracts the attention of academics, parents and policymakers. Adeyemo believes that the university's major goal is to strive for students' academic success. According to him, the school may have other secondary tasks, but the emphasis is always on achieving good scholarship. In addition, virtually everyone involved in education places more emphasis on academic performance; parents often expect their children to perform well.[13]

This study is the first attempt to identify the most preferable qualities of a graduate of a higher education institution by the labor market in Kazakhstan based on a comprehensive analysis of the data collected as a result of a survey among graduates. The motivation behind this study is to understand which factors ensure receiving a job offer for students with higher education after graduation. Although, it is difficult to accurately predict the decision of the employers due to “one-sidedness” of the research. Therefore, it is crucial to understand the relation between the skills and experience of graduate and the employment. The following section will explain the process of data collection, and the analysis based on the information received.

Data acquisition and processing.

The study uses the data from the survey undertaken among the Bachelor graduates from Kazakhstani Universities. The survey was conducted via Coogle Forms. By the end of the third week of the survey (22.03-11.04) 141 graduates were polled, which included 87 female and 54 male respondents graduated between 2017 to 2021. The data consist of the university name, major, gender, graduation year, employment status, GPA, membership in student organizations, participation in academic mobility

[12] Qamar, T., & Majeed, M. S. (2020). NEGLECT PARENTING STYLE AND ACADEMIC ACHIEVEMENT IN MEDICAL STUDENTS: MODERATING ROLE OF EMOTIONAL INTELLIGENCE. European Journal of Research in Social Sciences Vol, 8(1).

[13] Emordi, E. C., & Osiki, O. M. (2008). Lagos: the ‘villagized’city. Information, society and justice journal, 2(1), 95-109.

program, volunteering, work experience, self-reported motivation and commitment. The participants represent 15 different universities, the most frequent answered universities were M. S. Narikbaev KAZGUU university, Eurasian National University named after L. N. Gumilyov and Al-Farabi Kazakh National University. The data collected with the survey used for regression analysis conducted in R Studio.

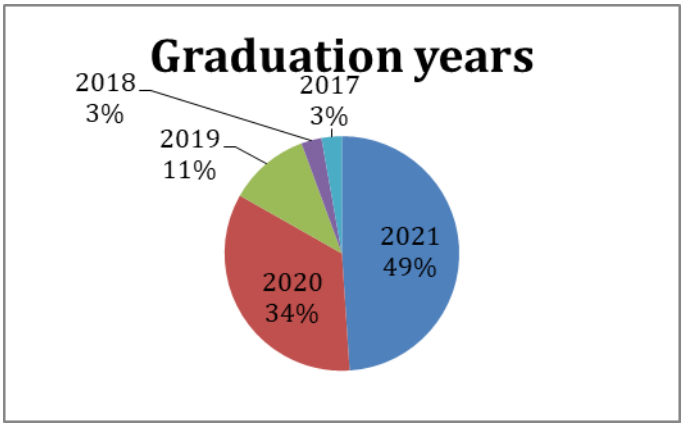

Figure 1. Distribution of respondents by the year of graduation
Source: *https://forms.gle/E185LZnNJvwXJrAU9*

Respondents were asked to choose the university graduation year; almost half of them are graduating in 2021, 34% of respondents have graduated in 2020, graduates of the year 2019 conducted 11%, and for 3% 2017 and 2018 years graduates were surveyed. The year of graduation specifically surveyed and controlled for in the regression to capture possible year effect, particularly, the effects of coronavirus outbreak in 2020.

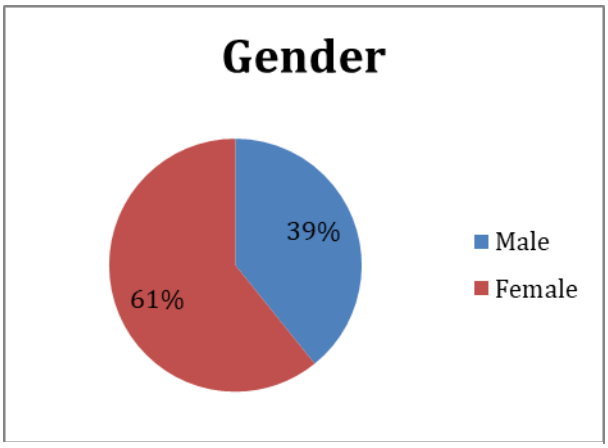

Figure 2. Share of respondents by gender
Source: *https://forms.gle/E185LZnNJvwXJrAU9*

Gender was also considered as a factor affecting employability, although it may seem as secondary information. 61% of graduates were female respondents, whereas male graduates amounted 39% respectively.

The most frequently responded major (specialization) among the surveyed graduates was Finance, constituting 16,8% of all respondents. “Economics” composed 14% and “Management” is also in top 3 majors and amounted to 10,4%. The questionnaire covered 28 specializations and faculties such as Social sciences and Business, Healthcare and Medicine, Arts, Law, Natural Sciences, Engineering and Technology and IT. There is an assumption that at the specialization of the graduates may have strong impact on willingness to get a job due varying level of competition, jobs availability or requirement of personal achievements and working experience.

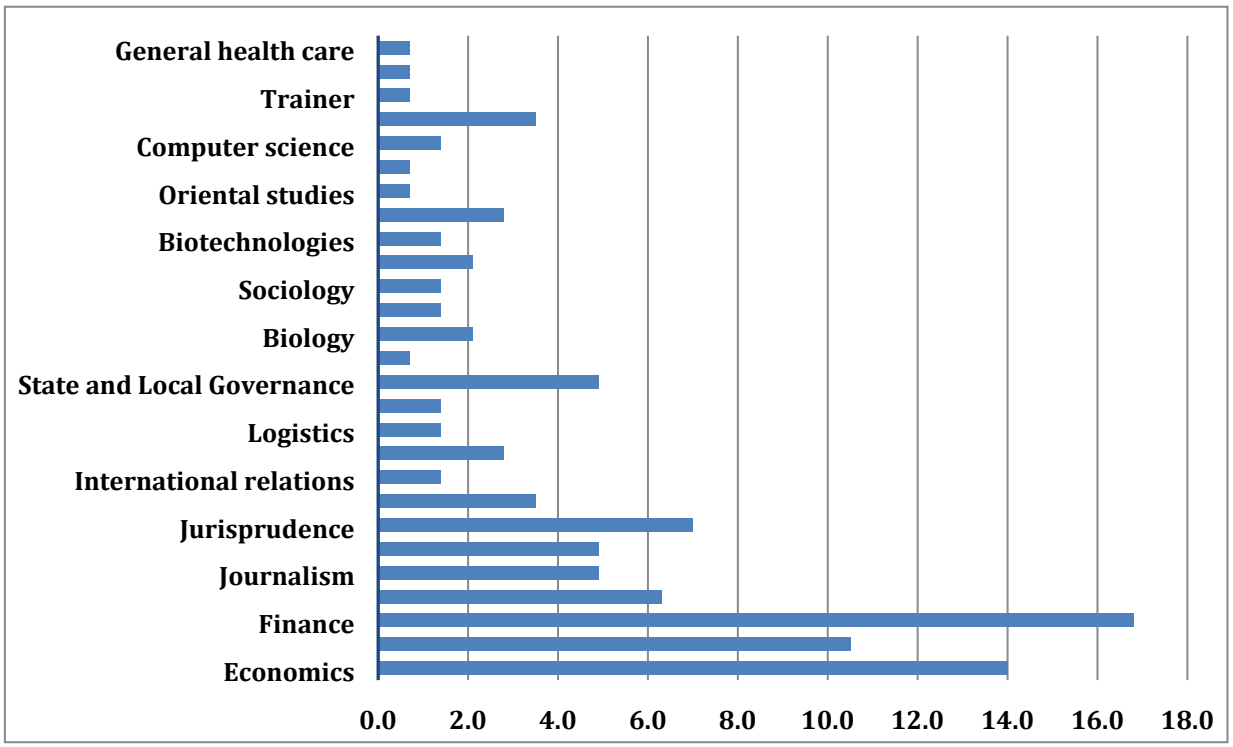

Figure 3. Percentage of specializations participated in poll.
Source: *https://forms.gle/E185LZnNJvwXJrAU9*

Next question on the poll considered the amount of graduates received a job offer or already working (Figure 4). 56% of participants answered “Yes”, labeling employed graduates. 18% of graduates are currently working in a job which is not related to their field of study. 26% of graduates

answered that they could not find a job, nor on their major, nor in unrelated fields. 27 graduates who received a job not related to their specialization can be considered separately or combined with other category. Presumably, the results may show the impact of soft skills and personal factors on the employability in general.

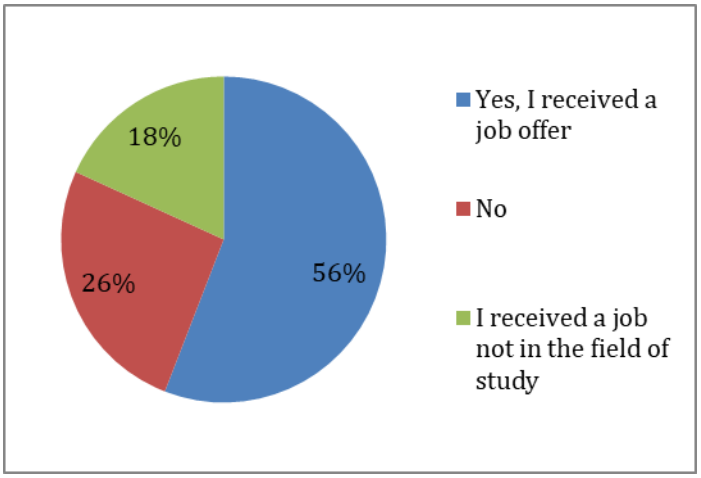

Figure 4. Distribution of employed and unemployed graduates
Source: *https://forms.gle/E185LZnNJvwXJrAU9*

In the table shown below (Table 2.) the data on number of graduates representing the total number of surveyed graduates, number of those who received a job offer on their field of study and those who are working at job positions unrelated to their specialization separately for male and female respondents are shown.

№	Universities participated in a survey	Number of participants		Number of participants received an offer not in the field of study		Number of participants received an offer in their specialization	
		male	female	male	female	male	female
1	KAZGUU university named after M. S. Narikbaev	13	33	1	7	9	19
2	Kazakh-British Technical University	1	3	0	1	1	1
3	KIMEP University	5	5	0	0	2	5
4	Suleyman Demirel University	5	8	0	1	5	6
5	Eurasian National University named after L. N. Gumilyov	13	15	0	3	5	9
6	Astana medical University	0	2	0	0	0	0
7	Kazakh University of technology and business	2	4	1	0	0	2
8	Nazarbayev University	0	2	0	2	0	0
9	Al-Farabi Kazakh National University	4	9	1	2	1	3
10	Toraigyrov University	0	4	0	4	0	0
11	Turan-Astana University	4	1	1	0	1	1
12	T.K. Zhurgenov Kazakh National Academy of Arts	2	2	0	0	1	2
13	Others	4	0	1	0	2	0

Table 2. Data on university, gender and employment
Source: *https://forms.gle/E185LZnNJvwXJrAU9*

The table shows 78% employment for female and 59% for male graduates, suggesting that employability of females surveyed is higher than males.

The diagram below (Figure 5) displays the answers to the questions “I am a purposeful person, I have goals and always reach them”, “I always was among the best students in my class” and other, poll questions giving information on membership in student organizations, volunteering and internship experience.

More than half (55,2%) of respondents answered that they were members of student organization, and 44,8% answered "No". The results of question about volunteering experience were almost the same as the previous, showing 52,4% of graduates were engaged to volunteering activities while studying and 47,6% did not have an experience in volunteering. 16,8% of respondents were participants of academic mobility program, whereas other 83,2% were not a part of it. Internship experience regarding specialization had 56,6% of polled graduates and 43,4% of them did not have any experience related to their major. The active and motivated graduates constituted 64,9% answering “Yes” to the question, and to the question about commitment the “Yes” answers amounted to 68,8% and for “No” 31,2% respectively.

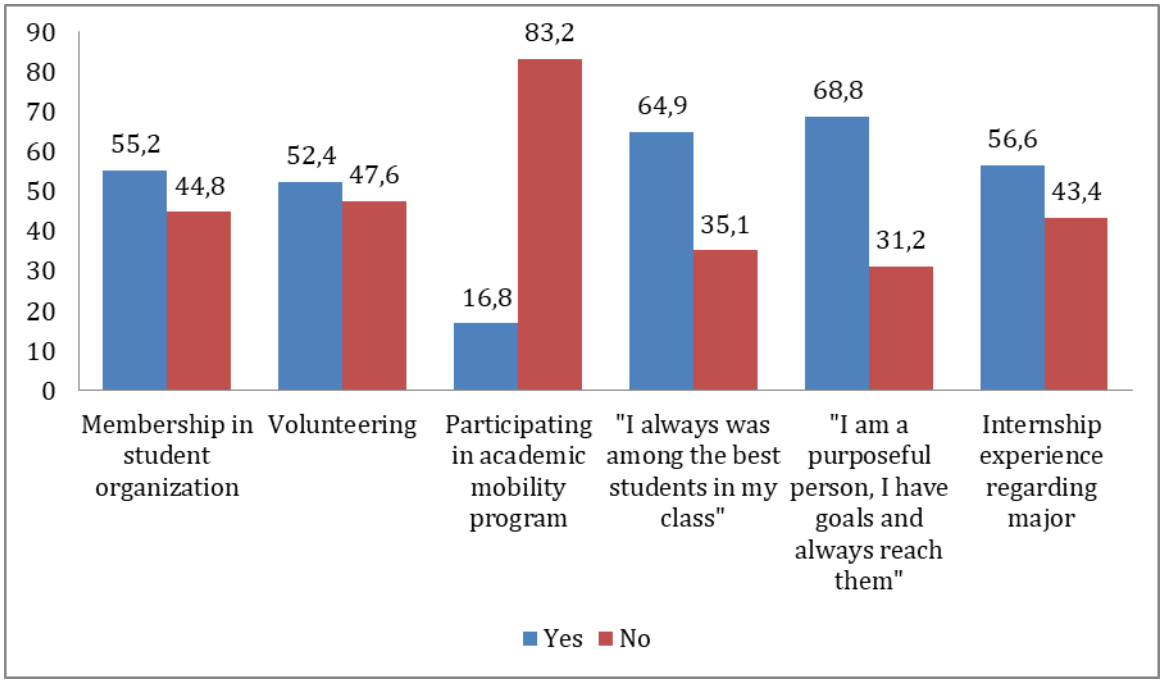

Figure 5. Share of answers on categorical data
Source: *https://forms.gle/E185LZnNJvwXJrAU9*

Methodology.

For data collection, a survey was used. The project team initially created a survey[14] and distributed it among the graduates from different universities in Kazakhstan asking them to take a part (appendix 1). The survey raised questions related to year of graduation, major, gender, internship, volunteering, participation in student organization and personal factors. The answers collected with the survey that constitutes the framework of our research. The team also reviewed relevant literature cited above to develop a theoretical framework for the survey results' validation and analysis. The use of the survey refers to the quantitative research method, since the data was collected through the survey.

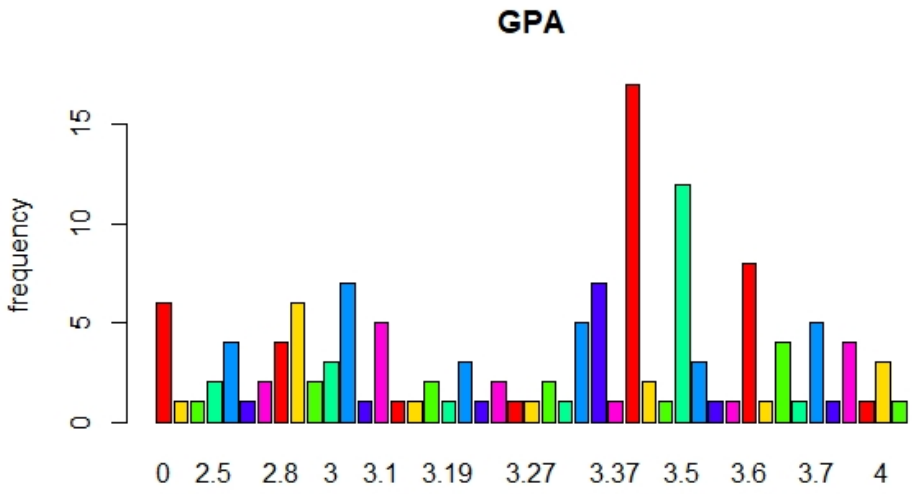

Figure 6. GPA results from R Source: Based on R analysis.

The survey should not involve ethical issues since it was voluntary, and participants had a right to withdraw from the survey at any point. The survey also was easy to answer. The authors believe that the survey among graduates will provide a lot of useful information about the question posed, since they are directly confronted with the main question - were they successfully employed or not? In order to investigate what ensures successful employment and internship for senior undergraduate students, we run an ordinary last squares (OLS) model on the data we obtained during a survey of graduates with the

[14] (https://docs.google.com/forms/d/e/1FAIpQLSfXGHjpBK5fp_a-3Ho8pN0kXrBuQYdNyP089zy2UXmQl1DSPg/viewform?usp=sf_link)

R program (R is a programming language for statistical data processing and work with graphics.) using the formula:

$$Y=\beta_0+\beta_1 university+\beta_2 year+\beta_3 male+\beta_4 major+\beta_5 exp+\beta_6 GPA+\beta_7 stud\_org+$$

$$+\beta_8 academ+\beta_9 volun+\beta_{10} educ+\beta_{11} motiv\_1+\beta_{12} motiv\_2$$

Where constants:

Y – employment (job placement)

$\beta_1$university – which university is the graduate from.

$\beta_2$year - year of graduation.

$\beta_3$male – gender. (1 for male)

$\beta_4$major - graduate major.

$\beta_5$exp - is there any work experience.

β_6GPA - final Grade Point Average (GPA).

$\beta_7$stud_org - participation in student organizations.

$\beta_8$academ – participation in academic mobility.

$\beta_9$volun – volunteering.

β_{10}educ - did the graduate consider himself as “among the best in his class”.

β_{11}motiv_1 - did the graduate consider himself motivated.

β_{12}motiv_2 - did the graduate consider himself committed.

In addition to the usual last squares model, graphs were built for each of the variables, which will be presented later in the work. They were also built using R program.

Regression analysis was used in the work as it is used to solve problems such as figuring out which independent variable(s) is associated with the dependent variable allowing to understand the relationship between dependent and independent variables and predict the dependent variable.

A full analysis was carried out on the model that was obtained by us and the constructed graphs in order to find out why and how each of the variables affects. Since the work has a graphs for each of

the answers received, you can select a specific graph to use in order to understand it in detail, and, if necessary, remove it. Therefore, the team chose this particular method of analysis, as it was considered the most convenient. Based on all the information received, our group will be able to answer our question.

Our research question might involve omitted variable bias. This is due to the fact that we might omit important variables correlated with the students' characteristics and the probability to obtain earlier employment, such as ability or motivation. If we do not control for them, we can overestimate the effect of the students' characteristics, such as GPA or others. Therefore, while designing the survey we specifically added the questions that allow to self-evaluate ability and motivation (appendix 1). Thus, we believe we successfully solve possible omitted variable bias.

Modelling process and outcomes.

The number of respondents considered in the modeling process comprised 111, since 30 of polled graduates' answers were not accepted due to the absence of some information on GPA, employment unrelated to their field of study and mismatching data supplied.

The study used various factors which were grouped by position to simplify the analysis and most of categorical variables are coded as dummy variables with two values, namely 1-yes and 0-no, with exception of some categorical variables having several values, such us university, graduation year, gender and major. For the "university" variable, universities were divided into two groups in accordance with the official classification: "1"-private, "0"-national universities. Factor "org" - indicates the student's participation in student organizations, where "1" is for "*yes, participated*" and "0" for "*no, did not participate*". The "academ" factor is responsible for the students' academic mobility experience ("1"-yes, "0"-no). The factor "exp" is used to represent the presence of internship experience and practice before graduation ("1"-yes, "0"-no). Variables "motiv_1", "motiv_2" are responsible for the student's personal characteristics: where "motiv_1" stands for respondents' self-reported motivation; "motiv_2" represents graduate's commitment assessment, ("1"-

motivated/committed, “0”-not motivated/committed). The “volun” factor is responsible for the student's involvement in volunteering activities: “1”-yes and “0”-no respectively. The “major” factor was divided into several groups of specialties depending on their field: *biotechnologies and ecology* as “biology”, *medicine, psychology and general healthcare* refer to “medic”, “english” for *foreign languages and translation studies*, *oriental studies, culturologist and sociology* were grouped as “professor”, majors such as *jurisprudence, international law, international relationships and state and local governance* represents the “law” variable, and *computer science* is given as “IT”. The rest of the majors were coded directly by name: “econom” for economics, “finance”, “audit” for accounting, “journalist”, “music” for musical theater actor, “marketing”, “tourism”, “management”, “logistics”.

	Dependent variable:		
	success		
	(1)	(2)	(3)
as.factor(university)1	0.243*	0.152	0.152
	(0.123)	(0.096)	(0.096)
as.factor(year)2019	-0.057	-0.218	-0.158
	(0.384)	(0.297)	(0.314)
as.factor(year)2020	0.208	-0.199	-0.145
	(0.358)	(0.282)	(0.297)
as.factor(year)2021	0.156	-0.228	-0.179
	(0.359)	(0.282)	(0.295)
as.factor(gender)male	-0.105	-0.089	-0.088
	(0.097)	(0.075)	(0.075)
as.factor(major)audit	0.309	0.161	0.183
	(0.237)	(0.184)	(0.188)
as.factor(major)biology	0.269	0.052	0.063
	(0.361)	(0.280)	(0.282)
as.factor(major)building	0.728	0.210	0.215
	(0.479)	(0.376)	(0.378)
as.factor(major)econom	0.414*	0.233	0.248
	(0.214)	(0.167)	(0.169)
as.factor(major)english	0.706***	0.309	0.319
	(0.246)	(0.197)	(0.199)
as.factor(major)finance	0.388*	0.162	0.174
	(0.211)	(0.166)	(0.167)
as.factor(major)IT	0.473	0.262	0.284
	(0.369)	(0.287)	(0.290)
as.factor(major)journalist	0.530**	0.126	0.134
	(0.233)	(0.187)	(0.189)
as.factor(major)law	0.251	0.216	0.229
	(0.215)	(0.166)	(0.168)
as.factor(major)logistics	0.475	0.211	0.223
	(0.373)	(0.290)	(0.292)
as.factor(major)management	0.513**	0.180	0.196

	(0.219)	(0.175)	(0.177)
as.factor(major)marketing	0.558	0.265	0.327
	(0.345)	(0.269)	(0.289)
as.factor(major)medic	0.265	0.049	0.060
	(0.361)	(0.280)	(0.282)
as.factor(major)music	0.751**	0.778***	0.801***
	(0.332)	(0.257)	(0.260)
as.factor(major)philosophy	0.781*	0.253	0.267
	(0.462)	(0.363)	(0.365)
as.factor(major)professor	1.079**	0.468	0.460
	(0.494)	(0.390)	(0.392)
as.factor(major)turist	0.484	0.111	0.116
	(0.373)	(0.292)	(0.294)
as.numeric(GPA)	0.294**	0.187*	0.191*
	(0.126)	(0.098)	(0.099)
as.factor(org)1	-0.151	-0.163**	-0.162**
	(0.092)	(0.071)	(0.072)
as.factor(academ)1	0.072	-0.067	-0.067
	(0.118)	(0.093)	(0.093)
as.factor(volun)1	-0.140	-0.035	-0.027
	(0.099)	(0.078)	(0.079)
as.factor(exp)1	0.192*	0.084	0.092
	(0.097)	(0.076)	(0.077)
as.factor(motiv_1)1		0.619***	0.549***
		(0.082)	(0.142)
as.factor(motiv_2)1			0.082
			(0.135)
Constant	-0.949	-0.273	-0.370
	(0.592)	(0.466)	(0.494)
Observations	111	111	111
R^2	0.379	0.634	0.636
Adjusted R^2	0.177	0.509	0.505
Residual Std. Error	0.423 (df = 83)	0.327 (df = 82)	0.328 (df = 81)
F Statistic	1.877** (df = 27; 83)	5.073*** (df = 28; 82)	4.873*** (df = 29; 81)
Note:			*p**p***p<0.01

Table 3. Simulation results.
Source: Based on R.

In the process of testing, three models were built to understand how a particular factor will affect successful employment. First, we use the OLS method to test the significance of various factors in the model, as well as the type of regression, running multiple regression. The factors such as “university”, “year”, “gender”, “major”, “GPA”, “org”, “academ”, “volun”, “motiv_1”, “motiv_2” were used for this method. It can be seen that in the first model, the most significant values amounted for the “university”, “major”, “GPA”, “exp” variables. When the test was run excluding the “motiv” variable, the main

factors that affect on employability are the type of university (private or national), the type of major and the level of academic performance - “GPA”. If we consider the “major” factor in terms of influence on employment separately, its contribution is highly significant in contrast to the other two. Majors such as economics, finance, journalism, english, management and musical theater actor are most likely to be employed. These specialties have a great chance of finding a job after graduation. The university is also important within the framework of this model; as a result, private universities produce more successful graduates who are subsequently employed in the labor market. Since GPA level represents student's level of knowledge, which logically affects his competitiveness in the labor market, the higher the GPA, the greater the chance to be employed.

Within the framework of the second model, where self-assessed personal factors were included, the “motiv_1” factor should show how much the student is interested in his field of study and further employment. In this model, after the inclusion of the factor of motivation, the “university” and “major” factors are no longer statistically significant, and do not affect successful employment. On the other hand, factors such as "org" – participation in student organization and "motiv_1" began to influence strongly to graduates’ employability; which can be explained by the fact that a student, being motivated to find a job, regardless of the university or major, can get a job offer earlier, since leadership and purposefulness can strongly influence the student's employability. However, the factor "GPA" remains unchanged, since the level of academic achievement represents students’ willingness to compete and the high level of theoretical education he has, regardless of the type of university or major.

Calculations of the third model, which covered all personal factors, can show an overall picture of impact of each factor on our dummy variable. Based on the results, it can be seen that after inclusion of the factor “motiv_2”, the strong impact of self-assessed motivation (“motiv_1”) on student's employability was unchanged; while the contribution of respondent’s commitment (“motive_2”) was not significant. It was revealed that the strongly influencing factors were “GPA” and “org” as well as it was shown in the previous model. In conclusion of the results obtained, it can be stated that the GPA –

indicator of academic performance of graduate is the main contributor to the successful employment and has the highest level of influence in earlier employment.

In addition to the discussion above, it is important to explain the statistical significance of the major "music" within the framework of the three models. According to the data from the poll, all 3 (out of 111) graduates from this major currently have a job related to their field of study. Due to the small amount of respondents from this particular major, supplied data is not enough to determine the significance of this major. Also, based on the simulation results, we can say that the most accurate model is model 3, since the R = 0.636, which is the largest level that generally shows how well the model describes the values. The results of the simulations, show a real picture of what kind of factor influences most to a successful employment in the labor market after graduation. Logically and organically, the research results are similar to those criteria that are used in statistics; today such indicators as GPA, major, university and motivation are the main factors for explaining successful employment. The data results were same as the data obtained from various sources and literature, which in general indicates the correctness of this model. [15]

Discussion and Concluding Remarks

In conclusion based on the collected data and analysis, self-assessed ability, motivation, university, major and GPA are the main factors for successful employment, and most of all affect how quickly a university graduate will find a suitable job. Therefore, applicants should choose proper university and specialty, value themselves and be more motivated in order to improve their employability. When the model was calculated excluding students' self-assessed motivation and self-assessed commitment, the major, work experience, university, become more influential and significant in employment. The study also identified specific areas of professions that are more in demand; representatives of these professions were employed more often. They are relevant only when there is exception of main factors above. The year of graduation and academic mobility proved both less

[15] http://houdekpetr.cz/!data/public_html/papers/Roth%20et%20al%201996.pdf

influential according to the results. The thesis captured different universities, with different specialties, and the year of graduation participated in the survey, but since there were only 111 respondents, it is impossible to say with accuracy that the study and the results obtained are generalizable toward other majors, universities and generally the population of higher education graduates of Kazakhstan.

In order to increase the accuracy and reduce the number of errors in the statistical data, in the future it is recommended to survey as many students as possible, from different cities of the country, without being limited to a hundred, reaching thousands of students. Because most of the respondents were students of the universities of the capital city Nur-Sultan and Almaty, it is likely that in other cities the situation with the employment of graduates is different. This will significantly increase the accuracy, and reduce the probability of deviations. In addition, there is recommendation to consider other factors that may affect the employment situation. For example, to take into account the opinion of employers, conduct a survey among them, or conduct an interview in order to expand the range of research. In addition, there is a need to make the questionnaire more debunked by adding even more questions in order for the data to be more accurate in the future. This will significantly increase the reliability of the results.

References

Audu R., Yusri Bin Kamin And Muhammed Sukri Bin Saud (2013); Acquisition of Employability Skills in Technical Vocational Education; Necessity For The 21 st Century Workforce. Aust J Basic and Applied Sci. 7(6):9-14

Aremu, A. O. (2000). Academic performance 5 factor inventory. Ibadan: Stirling-Horden Publishers.

Bremer, M. (2012). *Multiple Linear Regression*. M. Bremer. Retrieved from http://mezeylab.cb.bscb.cornell.edu/labmembers/documents/supplement%205%20-%20multiple%20regression.pdf

Burgner, D., & Hewstone, M. (1993). children's causal attributions for success and failure:'Self-enhancing'boys and 'self-derogating'girls. British Journal of Developmental Psychology, 11(2), 125-129.

Dev, M. (2016). Factors Affecting the Academic Achievement 95-109.

Emordi, E. C., & Osiki, O. M. (2008). Lagos: the 'villagized'city. Information, society and justice journal, 2(1), Adeyemo, D. A. (2010). Emotional intelligence and academic achievement: The moderating influence of age, intrinsic and extrinsic motivation.

Hicks, J. R. (1936). Keynes' Theory of Employment. *The Economic Journal*, *46*(182), 238–253. https://doi.org/10.2307/2225227

Krapp, A., Schiefele, U. &Winteler, A. (2009). Interest as predictor of academic achievement: A mete-analysis of research.

Lightbody, P., Siann, G., Stocks, R. & Walsh, D.(1996). Motivation and attribution: the role of gender. Educational Studies, 22, 13-25

Panetsos, S., Attikis, N. I., Kostoglou, V., & Alexander, T. E. I. (2008). The employability of educational specialties: Design and implementation of a survey model.

Postigo, Y., Perez, M., & Sanz, A. (1999). A study about gender differences in solving scientific problems. Ensenanza de las Ciencias, 17, 247-258.

Qamar, T., & Majeed, M. S. (2020). Neglect parenting style and academic achievement in medical students: moderating role of emotional intelligence. European Journal of Research in Social Sciences Vol, 8(1).

Resolution of the Government of the Republic of Kazakhstan No. 316. (2011). "Employment Roadmap 2020" of March 31, 2011.

Smith, L. Sinclair, K.E. Chapman, E.S. (2002). Students' Goals, Self-Efficacy, Self Handicapping, and Negative Affective Responses.

Tavani, C. M., & Losh, S. C. (2003). Motivation, self-confidence, and expectations as predictors of the academic performances among students. Child study journal, 33(3), 141-152.

Tinto, V. (2012). Completing college: Rethinking institutional action. University of Chicago Press.

Two-Way ANOVA Test in R - Easy Guides - Wiki - STHDA. (n.d.). STHDA. Retrieved April 10, 2021, from http://www.sthda.com/english/wiki/two-way-anova-test-in-r

Нурбай, Р. (2021, April 15). *Какой уровень безработицы прогнозируется в Казахстане на 2021 год Все права защищены. Используйте активную ссылку на strategy2050.kz: https://strategy2050.kz/ru/news/kakoy-uroven-bezrabotitsy-prognoziruetsya-v-kazakhstane-na-2021-*

god/. Strategy 2050. Retrieved April 13, 2021, from https://strategy2050.kz/ru/news/kakoy-uroven-bezrabotitsy-prognoziruetsya-v-kazakhstane-na-2021-god/

Рейтинг образовательных программ вузов. (n.d.). Atameken. Retrieved April 13, 2021, from https://atameken.kz/ru/university_ratings

Рынок труда Казахстана по итогам 2020 года | АО "ЦРТР." (n.d.). iac.enbek.kz. Retrieved March 17, 2021, from https://iac.enbek.kz/ru/node/1044

Appendices.

Appendix 1. Survey questions.

1	Укажите Ваш Университет
2	Укажите год выпуска Варианты ответов: *2021* *2020* *2019* *2018* *2017*

3	Укажите Ваш пол Варианты ответов: *мужской* *женский*
4	Укажите свою специальность
5	Смогли ли Вы трудоустроиться на работу/получить приглашение на стажировку по Вашей специальности? Варианты ответов: *Да* *Нет* *Да, но не по своей специальности*
6	Укажите свой GPA на момент выпуска
7	Состояли (состоите) ли Вы в каких либо студенческих организациях? Варианты ответов: *Да* *Нет*
8	Являетесь ли вы участником программ академической мобильности? Варианты ответов: *Да* *Нет*
9	Занимались ли вы волонтерской деятельностью во время учбы? Варианты ответов: *Да* *Нет*
10	Имеете опыт прохождения стажировки в организациях на позиции связанные с вашей специальностью? Варианты ответов: *Да* *Нет*
11	Вы согласны или не согласны со следующим утверждением - "Я всегда был(а) одним из лучших студентов в своем классе?" Варианты ответов: *Да* *Нет*
12	Вы согласны или не согласны со следующим утверждением - "Я целеустремленный человек, у меня есть цели и я всегда их достигаю" Варианты ответов: *Да* *Нет*