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Analysis of supply side factors influencing employability of new graduates: A tracer study of Bahir Dar University graduates

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Abstract

The purpose of this study was to determine the job placement profiles of the graduates of Bahir Dar University and the relevance of school-related factors to job placement. The study was conducted at Bahir Dar University with participants who were first-degree graduates from the 2015 and 2016 cohorts. Stratified multistage random sampling was used to select respondents. Out of 4208 graduates, 867 graduates were selected to participate in the study. To determine the potential factors for graduate employability in the labour market, both descriptive and inferential statistics were applied. Results revealed that 79% percent of surveyed graduates were gainfully employed, with the majority (93%) having their first job related to their completed course. The time taken to find employment was from 1 to 6 months and the overall average duration of unemployment was 5.08 months. Sixty five percent of graduates reported that they used a public advertisement to find their first job and 58% reported that their employers used examinations to select potential candidates. A 12% variation in employability was explained by CGPA, preferred field of study, the number of companies contacted and time management skills of graduates. Moreover, graduates' transitional employability has a positive association with cumulative GPA, preferred field of study, and internship practice. It is recommended that sustainable employment of graduates can be secured if the University improves its current curriculum to incorporate more employability skills demanded by the labour market.

Keywords: Employability rate, degree-relevant employment, unemployment duration, job search

Introduction

The problem of graduate unemployment has continued to increase globally and remained extremely high in developing countries despite the concerted efforts by the national and international development agencies to reduce the level of unemployment(Galal, 2007; Ismail, 2011; Nikusekela & Pallangyo, 2016; Okojie, 2003; Simpsons, 2011). Particularly in sub-Saharan African economies,

unemployment has maintained a rising trend over the past years and has been recognised as one of the greatest challenges of the region (Bello, 2003). Most of the higher education new graduates in the sub-Saharan region have been struggling to secure jobs by either self-employment or gaining employment in government or private organizations. In Ethiopia, higher education enrolment increased from around 34,000 in 2000 to almost 900,000 in 2018 (Ethiopian Ministry of Science and Higher education, 2018). Although the level of enrolment in Ethiopia has been accelerating, the labour market can only absorb a limited number of graduates and thereby thousands of young higher education graduates are remaining unemployed (Semela, 2011).

Graduate employability, as defined by Coetzee and Schreuder (2011) is an *individual's capacity and willingness to become and remain attractive in the labour market* (p.77). It is becoming a major concern for governments, development-oriented organisations and higher learning institutions both in developed and developing countries including Ethiopia. While the significance of higher education is assessed on its ability to open ways to the graduates for future business and the foundation of their reasonable vocation, the current trend of higher education is not in line with these requirements (Broussard, Nzinga& Tekleselassie, 2012).

The major driver of employability is the quality of graduates that a university produces usually recognised in terms of skills and abilities to perform a given task competently. One of the primary objectives of higher education foundation is that graduates may persistently adjust to the necessities of an exceedingly changing labour market. It is imperative for universities to ensure that the skills and competences gained by graduates during their studies fit into the society's labour market demand which looks for qualified employees (Altbach, Reisberg, & Rumbley, 2009; Rojas, Teresita,& Rojas, 2016). It is widely recognized that employment opportunities decrease as the number of graduates increases and that periods of searching for jobs are becoming longer (Mugabushaka, Schomburg, & Teichler, 2007).

Understanding the employment characteristics and the underlying factors that influence undergraduate students' successful transition into the labour market is critical, both to reduce the proportion of new graduates who are overqualified for their jobs, and to ensure that employers can recruit graduates who have the skills their organisations need to succeed in the knowledge-based economy (Finch, Hamilton, Baldwin, & Zehner, 2013).

This study was designed to better understand the employability characteristics and underlying supply-side factors that affect the employability of bachelor degree graduates through a tracer study. More specifically, it sought to determine the job placement profiles of the graduates and the relevance of school-related factors to job placement. It also aimed to identify work-related skills that contribute to meeting the demands of the present job. The prevalence of unemployment and associated factors in Ethiopia is not well identified and most of the graduates from higher education take extra time to secure jobs.

Literature review

It is recognised that graduates' employability is affected by their own particular skills and education (Dacre Pool & Sewell, 2007) as well as by many other factors related to the economic setting and supply side (Fox & Morrison, 2010; Mugabushaka et al., 2011). Previous empirical studies revealed that employability factors can be viewed from two levels of skills: field specific skills and soft skills (Bhaerman & Spill, 1988; Finch et al., 2013).

The first level of skills is related to specific employability factors including field-specific skills such as listening skills, writing skills, and academic performance usually measured by cumulative grade point average (CGPA). More specifically, under this category, scholars have incorporated basic education skills such as skills of communication, analysis, reasoning and job-specific skills such as entry-level or advanced functional skills of a specific field. Effective communication is the lubricant that allows

organisations to operate smoothly and the payoff for effective communication is that managers and employees who develop strong communication skills are usually strong performers on their job (Woods & King, 2002). Employers are therefore looking for employees who are good communicators (Honaker, 2005). Communication skills are thus prominently among the top of the list of qualities employers seek for entry-level jobs including executive and blue-collar positions (McKay, 2005; Woods & King, 2002). Harvey et al. (1997) also showed that employers want graduates with relevant subject-specific skills, knowledge, and understanding, including job-specific competencies or job-specific technical skills (Harveyet al., 1997; Rosenberg, Heimler, & Morote, 2012). These skills are found to be essential when considering an individual's employability (Laker & Powell, 2011; Redish & Smith, 2008). Generally speaking, these skills send a signal to employers that a new graduate has mastered the specific proficiencies needed to perform highly on a particular job (Bhaerman & Spill, 1988). It is important to note that job-specific functional skills are more context-specific than soft-skills, which we define shortly. Another factor used to measure graduates' subject understanding in the selection process for entry-level employment is the graduate's academic performance usually measured in terms of the CGPA earned from the university. Since the number of job-seekers is usually much higher than the number of vacancies, recruiters often use marks or academic grades or the cumulative grade point aggregate as an elimination criterion when short-listing suitable candidates (Dhar, 2012). Therefore, we assume that CGPA is one of the factors affecting entry-level employment.

The second level of factors for employability is recognized as soft-skills or transferable or generic skills (Finch et al., 2013; Siraye, Abebe, Melese, & Wale, 2018). According to Finch et al. (2012), this higher-order category recognised as 'meta-skills' includes specific employability factors such as listening, professionalism, interpersonal skills, time management, and team work skills. Several empirical studies on graduate employability have shown that these and similar soft-skills are the employability skills most desired by employers in the workplace(Billing, 2003; Bridgstock, 2009; Heckman & Kautz, 2012; Robinson, Garton, & Vaughn, 2007). More recently both educational researchers and employers have given due attention to the importance of soft-skills for employability (Andrews & Higson, 2008; Hogan, Chamorro-Premuzic, & Kaiser, 2013; Omar, Manaf, Mohd, Kassim, & Aziz, 2012). While discipline-specific knowledge is typically content-specific, soft-skills are recognised to be non-academic skills that are presumed to be useful in a range of working environments and transferrable from one job to another job (Chamorro-Premuzic, Arteche, Bremner, Greven, & Furnham, 2010). Evidence suggests that soft skills are an important predictor of employability (Finch et al., 2013; Lievens & Sackett, 2012; Nickson, Warhurst, Commander, Hurrell, & Cullen, 2012; Rynes, Orlitzky, & Bretz Jr, 1997). Similarly, professionalism has been identified as contributing to employability (Ashton, 2011; Mat & Zabidi, 2010). Lastly, scholars have identified interpersonal skills such as the ability to work effectively in teams as an important employability factor (Finch et al., 2013; Standing & Chowdhury, 2008; Wellman, 2010). In the modern workplace, teams are fundamental to the success of initiatives, projects, strategies and routine assignments (Dunne & Rawlins, 2000). It has long been contended that teams are synergistic in nature. The collective benefits and accomplishments of the team are greater than would be the results of individuals' independent actions (DuFrene & Lehman, 2015).

Other researchers have also indicated that other factors like graduates' pre-job training or internship experience and institutional reputation significantly affect graduates employability. For example, the relationship between pre-graduate experience and employability has been studied extensively (Callanan & Benzing, 2004; Finch et al., 2013; Gabris & Mitchell, 1989; Gault, Leach, & Duey, 2010; Helyer & Lee, 2014). Pre-graduate work experience may include in-programme experiential learning opportunities like internships or a more informal career-related work experience such as part-time or summer employment. One of the key objectives of an internship is to ensure a smooth transition from student life to the workplace (Coco, 2000). Scholars claimed that students' participation in internship programs provide them the opportunity to test their abilities, beliefs, and attitudes pertaining to specific work tasks or career pathways (Miller, 1990).Similarly it allows the students to close the gap between theories and practices (Zopiatis, 2007).Thus it follows that university graduates who have

participated in internship programs prior to the job are more likely to get their transitional employment easily as compared with students who have not completed internships (Divine, Linrud, Miller, & Wilson, 2007).

Finally, some scholars have also indicated that the institution's academic reputation has a significant impact on a variety of outcomes of interest to employers, policymakers, and academics alike. For instance, researchers have examined how student retention and perceptions are affected by institutional ranking, branding and programme structure which are indicators of reputation (Bennett & Ali-Choudhury, 2009; Judson, Aurand, Gorchels, & Gordon, 2008; Pampaloni, 2010; Sauer & O'Donnell, 2006). It is fair to say, however, that comparatively few studies have explored the relationship between the academic reputation of the institution and the graduate's employability.

In summary, it is plausible to assume that successful transition from education to work is influenced by a complex combination of factors including subject specific knowledge, academic performance in general (cumulative grade point average), their soft, transferable or generic skills, and involvement in internship programs prior to graduation. The reputation of the institution may also play a role. And preferred field of study and preferred university (university reputation) have an influence on the employment process.

While the scholarship associated with these factors has come from various parts of the world, there is less clarity about the situation in Ethiopia. To date there have been very few such studies, a remarkable exception is the study by Siraye, Abebe, Melese and Wale (2018) who studied the employability status of business and economics graduates and found out that problem solving skills, information technology skills, adapting to change and risk taking Skills were the skills most demanded by employers. Hence, in order to help higher education institutions to produce employable graduates, it becomes necessary to examine supply side factors that influence employability of graduates.

Aim of the study

This study is primarily designed to understand the employability characteristics of bachelor's degree graduates from Bahir Dar University Ethiopia, through a tracer study. Specifically, it sought to determine the job placement profile of the graduates and the relevance of school related factors to job placement.

Research questions

We believe that the following research questions need to be addressed in order to empirically investigate the problem. With regard to Bachelor degree graduates from Bahir Dar University in Ethiopia:

- What are the significant factors affecting their employability?
- What is the time between graduation and first graduate employment?
- What is the influence of academic grades on employment on employment?
- What is the fit between the first employment and the course completed by the graduate?

Methods and source of population

A cross sectional design was used to determine the employment rate of graduates of Bahir Dar University. The target population of the study consists of two consecutive graduates' cohorts who had completed their undergraduate or bachelor's degree in 2015 and 2016 in regular programs. The sampling frame or lists of graduates in 2015 and 2016 was accessed from Bahir Dar University student information management system (SIMS) database with the consent of the directorate (see the authorization letter in appendix A). The data were consisted of students' biographic information and contact address. The total number of graduates during these two years were found to be 4208 (1899 for 2015 and 2309 for 2016) and 867 graduates were selected using the sampling technique suggested by

(Cochran, 1977). The sampled graduates were allocated by a multistage stratified random sampling technique to each department and thus each department in the university were proportionally represented.

A questionnaire was used as the main instrument for data collection. The questionnaire was taken from Ethiopian ministry of education prepared nationally for all Ethiopian universities to conduct tracer studies and slightly modified to this specific study (Appendix B). Prior to actual data collection, the sampled graduates were contacted by telephone to determine their actual location (region, city and organization in which they work) and to get their consent to participate in the survey.

To assist with data collection, a total of 45 faculty members (one from each department) were assigned to carry out the entire data collection supervised by the five members of the research team. The university faculty members were purposely selected as data collectors, rather than outsourcing and hiring data collectors since we believe that our university instructors are much more responsible for collecting reliable data from the field. These faculty members were selected on the recommendation of their respective department heads. Finally, graduates were clustered by all geographical regions of Ethiopia by supervisors and the 45 faculty members were assigned by considering the distance and number of graduates to collect the necessary information from graduates. We assured the quality of the data by cross-checking graduates who responded to questionnaires using telephone calls by the supervisors during and after the data collection. For example, a sample of five graduates assigned for each faculty members were contacted again through phone calls by supervisors to cross-check their responses. Through this process, a total of 715 questionnaires were successfully returned, providing a response rate of 82.5%. Of the returned questionnaire responses, 100% of the data were usable. The information deriving from the questionnaires was entered into Excel sheets and subsequently transferred into the Statistical Package for the Social Sciences (SPSS vs 21).

Data analysis

The data were analyzed using the Statistical Package for the Social Science (SPSS) and descriptive statistics with Chi-square tests were used to test the association between the dependent variable and independent variables. Multi-covariate logistic regression modelling was undertaken by entering all variables with P-value ≤ 0.25 in the bivariate analysis. Finally, logistic regression with a forward likelihood selection method with P-value < 0.05 was undertaken to see the net effects of predictor variables over the current employment status of graduates.

Results

The total population of the study was 4208 graduates (1899 for 2015 and 2309 for 2016) and using the sample size technique stated in the methodology section, a total of 867 graduates were selected as a sample of the study. Seven hundred and fifteen (715) questionnaires were returned from this sample of graduates, yielding a response rate of 82.5%. Of the returned questionnaire responses, 100% of the data were found to be usable. The result of the study shows the percentage of unemployment and employment of graduates for two consecutive years during the discrete unemployment duration and it was found that almost 80% of graduates obtained their first job within two years and among them 73% were found to be employed professionally. Out of these employed within two years, 93% have had degree-relevant employment (related to the course completed), whereas only 7% were employed in jobs not related to their course. However, more than 20% of graduates were still searching for jobs. Particularly, the prevalence of the employment status of graduates within a year was 70%. Most of the employment occurredbetween1 to 6 months after graduation and the average duration of unemployment in this study was 5.08 months. In addition, the results of the study indicated the prevalence of employment within a discrete time interval after graduation. In terms of the length of time spent job searching, it can be noted that the majority, i.e. 306 (42.7%), of the employed

respondents obtained their first jobs within 2-6 months, followed by a period of less than one month for 146 (20.4%). On the other hand, 8.7% of graduates found their first jobs in a span of 7–11 months and the other 80% of them took 1 to 2 years for job-hunting (see Table 1).

Table 1: Frequency Distribution of Graduate Employment Status with Discrete time Intervals

Unemployment Spell (Months)	Employment (n)	Unemployment (n)	Employment (%)	Cumulative Employment (%)	Average duration
0	0	715	0	0	**5.08**
1	146	569	0.204	0.204	
2	3	566	0.004	0.208	
3	105	461	0.147	0.355	
4	1	460	0.001	0.357	
5	64	396	0.090	0.446	
6	1	395	0.001	0.448	
7	44	351	0.062	0.509	
8	1	350	0.001	0.510	
9	37	313	0.052	0.562	
10	61	252	0.085	0.648	
11	23	229	0.032	0.680	
12	18	211	0.025	**0.705**	
13	4	207	0.006	0.710	
14	13	194	0.018	0.729	
15	4	190	0.006	0.734	
16	21	169	0.029	0.764	
17	3	166	0.004	0.768	
18	3	163	0.004	0.772	
19	2	161	0.003	0.775	
20	4	157	0.006	0.780	
20	3	154	0.004	0.785	
21	7	147	0.010	0.794	
22	2	145	0.003	0.797	
23	1	144	0.001	0.799	
24	1	143	0.001	0.800	
Total	**591**	**142**			

Variables	Category	n	%
Present employment status	• Professionally employed	522	73
	• Self-employed	49	6.9
	• Unemployed	144	20.1
Types of Job	• Related to the course completed	522	93
	• Unrelated to the course completed	39	7
Length of Job Search	• <= one month	146	20.4
	• 2 to 6 months	306	42.7
	• 7 to 11 months	62	8.7
	• 1 year to 2 years	58	8.1

	• Unemployed	144	20.1
Preferred work place	• Yes	627	87.7
	• No	88	12.3

The survey also looked at the methods that the university graduates used to acquire their first jobs. Eleven different mechanisms were used by graduates to secure their first jobs. The findings showed that the majority of graduates had a limited access to job information. Sixty-five percent of the respondents had used a public advertisement to find their first jobs, 29% had directly contacted employers and 26% got their job through relations with employers. Among all mechanisms, public advertisement (33.6%) is the most important one for graduates to secure their first jobs (Table 2)

Table 2: Comparison of Job Searching Methods used by the Graduates

Multiple response variables Job searching mechanisms	job searching mechanisms	Number	Percentage (%)	Percentage of cases
	Public advertisement	443	**33.6**	**64.4**
	Contacting companies directly	200	15.2	29.1
	I checked through the internet	184	14.0	26.7
	I was contacted by the company	143	10.9	20.8
	I contacted a commercial working agency	62	4.7	9.0
	Relations (e.g. parents, relatives, friends)	**177**	**13.4**	**25.7**
	I established my own business	72	5.5	10.5
	others	36	2.7	5.2
	Total	**1317**	**100**	**191.4**
Criteria the employers used to select candidates	Competition with CGPA	376	24.4	53.9
	Competition with examination	404	26.2	57.9
	Competition with written examination	399	25.9	57.2
	Competition with practical test	217	14.1	31.1
	Other	145	9.4	20.8
	Total		**100**	**220.9**

Around one-third (31.3%) of graduates were females and almost half (48.8%) of the graduates were from the Amhara region. Most of the graduates (57.3%) were contacted at most three employers to secure their first job and the majority of the sample graduates (59%) had an internship and, further, this internship was mostly used for personal development, followed by the development of entrepreneurial skills. With regard to the educational status of the graduates' parents, the majority of the parents were not educated, although the educational level of their fathers was better than that of their mothers. The result also shows that males and females have an almost similar employment rate and, relatively speaking, graduates belonging to Tigray and Southern nations and nationalities regions have better opportunities for securing their jobs,while those in the Oromia region have the least. Graduates who were enrolled at Bahir Dar University in their preferred fields of study and with good time management skills have better opportunities to secure their jobs. Almost 88% of the respondents were working in the place where they preferred. Any variable, whose univariate test (chi-square test of association) with a p-value < 0.25 should be considered as a candidate for inclusion in the multivariable logistic regression analysis to identify the potential factors responsible for the employment status of graduates (Mickey & Greenland, 1989).

The results of the study show that variables such as age, CGPA, internship, father's education, interpersonal skills, time management skills and the like were taken as potential candidates for the multivariable logistic regression analysis (Table 3).

Table 3: Socio-demographic Characteristics of Employees

Variables		Status of Employment n (%)		Total n (%)	p-value
		No	Yes		
Gender	Male	98(20)	393(80)	491(68.7)	0.859
	Female	46 (20.5)	178(79.5)	224(31.3)	
Region	Tigray	5(16.1)	26(83.9)	31(4.3)	0.28
	Addis Ababa	16(16.5)	81(83.5)	97(13.6)	
	Amhara	76(21.8)	273(78.2)	349(48.8)	
	Oromia	26(25.7)	75(74.3)	101(14.1)	
	SNNP	9(12.7)	62(87.3)	71(9.9)	
	Others	12(18.2)	54(81.8)	66(9.2)	
Preferred field of study	Yes	99(18.1)	447(81.9)	546(76.4)	0.016
	No	45(26.6)	124(73.4)	169(23.6)	
Preferred university	Yes	130(19.8)	527(80.2)	657(91.9)	0.428
	No	14(24.1)	44(75.9)	58(8.1)	
Father education	Not Educated	66(22.0)	234(78.0)	300(42.0)	0.096
	Primary School	19(13.6)	121(86.4)	140(19.6)	
	Secondary School and above	59(21.5)	216(78.5)	275(38.5)	
Mother education	Not Educated	79(21)	298(79.0)	377(52.7)	0.776
	Primary School	23(20.5)	89(79.5)	112(15.7)	
	Secondary School and above	42(18.6)	184(81.4)	226(31.6)	
Internship	Yes	50(22.5)	172(77.5)	493(69.0)	0.25
	No	94(19.1)	399(80.9)	222(31.0)	
No. of Companies contacted	<=3	64(14.2)	387(85.8)	451(63.1)	0<0.001
	>3	80(30.3)	184(69.7)	264(36.9)	
Prefer region to work	Yes	127(20.2)	501(79.8)	87(12.2)	0.882
	No	17(19.5)	70(80.5)	628(87.8)	
Computer and Internet Skills	Low	15(18.1)	68(81.9)	83(11.6)	0.541
	Little bit	53(22.5)	183(77.5)	236(33.0)	
	High	76(19.2)	320(80.8)	396(55.4)	
Interpersonal skills	Low	12(22.2)	42(77.8)	54(7.6)	0.13
	Little bit	42(25.3)	124(74.7)	166(23.2)	
	High	90(18.2)	405(81.8)	495(69.2)	
Communication Skills	Low	8(29.6)	19(70.4)	27(3.8)	0.23
	Little bit	48(22.4)	166(77.6)	214(29.9)	
	High	88(18.6)	386(81.4)	474(66.3)	
Time management skills	Low	12(22.6)	41(77.4)	53(7.4)	0.014
	Little bit	48(6.7)	127(72.6)	175(24.5)	
	High	144(11.7)	403(82.8)	487(68.1)	
Teamwork ability	Low	5(14.7)	29(85.3)	34(4.8)	0.252
	Little bit	38(24.5)	117(75.5)	155(21.7)	
	High	101(19.2)	425(80.8)	526(73.6)	
Preferred work place	Yes	127(20.1)	501(79.8)	628(87.8)	0.882
	No	17(2.4)	70(9.8)	87(12.2)	

Binary logistic regression was carried out to identify the effects of candidate variables (p-value<0.25) on the employability status of graduates from higher learning institutions. After adjusting other independent variables, the CGPA of the graduates had significantly affected the employment status. The odds of employment for graduates who studied their preferred fields was 62% more likely than that of graduates who did not study their preferred fields. Moreover, contacting a number of companies affects the employment status of graduates, so that the odds of employment status for those graduates who contacted less than three companies was 1.42 times less than that of those graduates who contacted more than 3 companies. The communication skills of graduates were directly related to the employment status, more specifically; graduates with low communication skills were 60% less likely to be employed than graduates with a high level of communication skills.

The results showed that employability for graduates has a positive association with CGPA, preferred fields of study and internship practice (even if it is insignificant). Time management skills of graduates was significant at p<0.05 and had a positive relationship with the employability of graduates with goodtime management skills having had a better chance for employment. However, the interpersonal skills of graduates was insignificant at p<0.05, although it did have a positive relationship (with a high level extent of skills as reference) to the employability of graduates demonstrating teamwork ability.

The Nagelkerke correlation coefficient (R^2) value of about 12% of the variation of employability is explained by the above mentioned statistically significant variables (Table 4).

Table 4: Logistic Analysis Results with Employability as the Dependent Variable

Variables	**Categories**	**Coefficient**	**Standard Error**	**Wald**	**Sig.**	**Exp(B)**
Age		0.015	0.035	0.193	0.661	1.02
CGPA		0.640	0.276	5.30	0.02*	1.90
Preferred field	Yes (1)	0.481	0.243	3.92	0.048*	1.62
Preferred university	Yes (1)	-0.033	0.393	0.01	0.934	0.968
Father's education	Not Educated (1)	0.769	0.351	4.80	0.028*	2.16
	Primary School(2)	-0.06	0.242	0.06	0.808	0.94
Internship	Yes (1)	0.35	0.225	2.25	0.133	1.42
No. of Companies contacted	<=3 (1)	-0.895	0.223	16.11	<0.001**	0.408
Interpersonal skills	Low (1)	-0.079	0.491	0.026	0.873	0.924
	Little bit(2)	-0.425	0.280	2.31	0.128	0.654
Communication Skills	Low (1)	-0.921	0.656	1.97	0.161	0.398
	Little bit(2)	0.277	0.275	1.02	0.314	1.320s
Time management skills	Low (1)	-0.619	0.302	4.193	0.041*	0.822
	Little bit(2)	-0.196	0.542	0.130	0.718	0.539
Teamwork ability	Low (1)	1.113	0.734	2.23	0.130	3.04
	Little bit(2)	0.239	0.323	0.550	0.458	1.27
Nagelkerke R Square	**0.118**					

Discussion

This study showed that graduates' employment status was 79% and the average length of job searching was 5.08 months. The model implies that graduate employability is a function of cumulative GPA, preferred field of study, father's education, number of companies he/she had contacted and his/her time management skills in the workplace. The findings of the study are almost similar to the reports by (Aquino et al., 2015; Guarcello & Rosati, 2007; Lim, 2011) who specifically investigated the labour market outcomes of young people, key factors influencing employment as well as the length of job search. However, the result of employment status in this study was remarkably different from that of other studies (Bewket, 2013; Tirussew, Alemayehu, Fantahun, Sewalem, & Yirgashewa, 2013), though this difference might result from the differences in the study areas and years of graduation.

In this study, there is no relationship between gender and employment status of graduates, and hence this study is in line with a study carried out in China (Kong & Jiang, 2011), but it contradicted a study

done in Norway which showed that female graduates are more likely to enter the labour market ahead of males (Kong, 2013), while in Tanzania males are more likely to be employed first (Nikusekela & Pallangyo, 2016). The result of the study indicated that graduates are predominantly using public advertisement as job-searching method, followed by interpersonal relationship (the help of friends and family) as a major way to search for jobs. This is in line with the results of the study conducted by (Bankole, Bankole, & Brown, 2011) where university graduates have eventually succeeded, in the family or personal connections and in announcements published in newspapers, coming mainly from the private sector. The results also revealed that the majority of graduates were professionally employed, while only a small number of them were self-employed. Concerning the length of time in getting transitional employment, the results showed that only a small number of graduates secure their first jobs within one year, while it takes between 1-2 years for the majority of graduates.

Recommendations and policy implications

For the successful transition of graduates to the labour market, universities for their part need to design and implement their programs and curricula in line with the skills discussed in the previous sections of this study. The study showed that apprenticeships and employment status are positively related so that the university in the collaboration with government should encourage each program to have the internship in each department and the university should work to strengthen the communication skills of the graduates.

Limitations

One of the factors responsible for the difficulty in finding employment may be the mismatch between the skills acquired by graduates during while at university and the skills demanded by the industries. This study lacks specific attention to this problem and a future tracer study will focus on these important points.

Future research implications

Further study is needed to identify the major challenges of unemployment such as lack of the university-industry linkage at the country level and the discrepancy between the acquisition and utilization of skills.

Conclusion

This study provides an important policy implication for higher education institutions. More, specifically, we confirmed that graduates' transition from higher education to work is a multidimensional phenomenon which is affected by several parameters including age, cumulative grade point average, and other generic skills (interpersonal skills, communication skills, time management skills, teamwork ability, and internship engagement). We found a statistically significant correlation between all these factors and employability of graduates.

Ethics Approval and Consent to Participate

This study was conducted according to the principles mentioned and expressed in the Declaration of Bahir Dar University, Ethiopia. It is approved by the student information system directorate office of the university. Participants were made aware in the consent form that the results of the study would be published but that no data would be presented to allow the identification of individuals.

Competing Interests

The authors declare that they have no conflict of interests.

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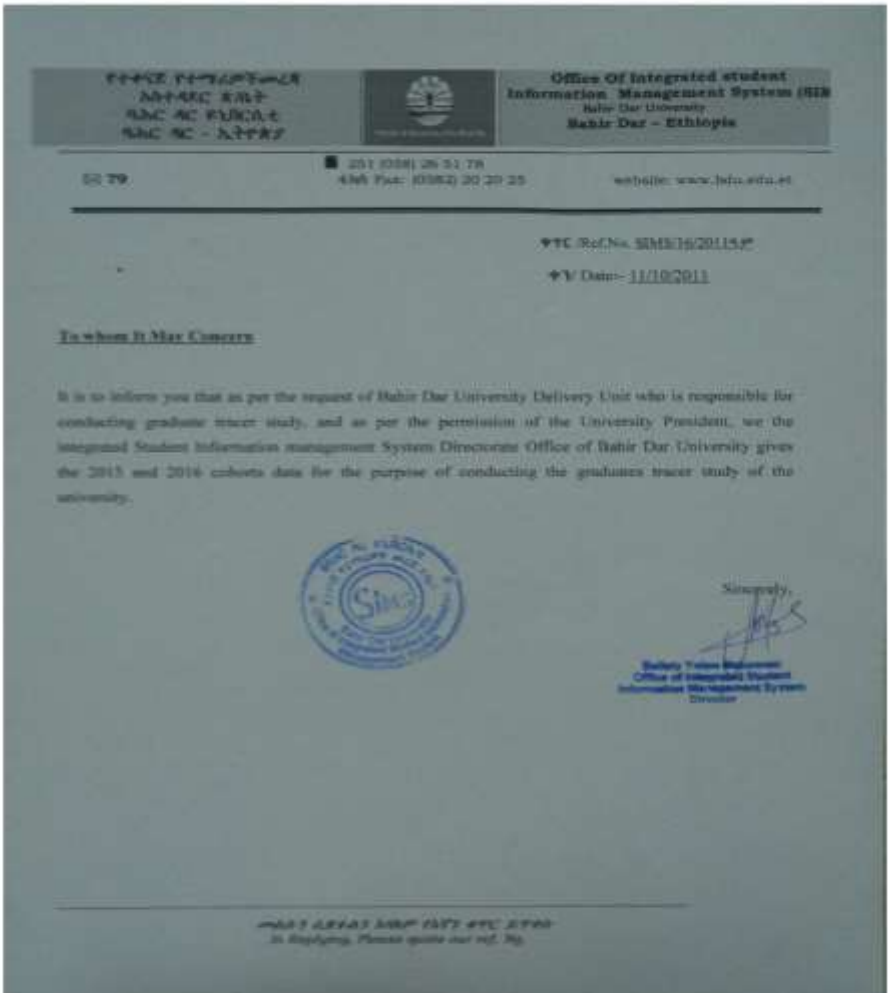
Appendix A- Letter of authorization to access students' data



Office Of Integrated student Information Management System (ISIS)
Bahir Dar University
Bahir Dar – Ethiopia

website: www.bdu.edu.et

Ref.No. SIMS/16/2011

Date:- 11/10/2011

To whom It May Concern

It is to inform you that as per the request of Bahir Dar University Delivery Unit who is responsible for conducting graduate tracer study, and as per the permission of the University President, we the Integrated Student Information management System Directorate Office of Bahir Dar University gives the 2015 and 2016 cohorts data for the purpose of conducting the graduates tracer study of the university.

Sincerely,

Appendix B- Sample questionnaire

Wisdom at the source of the Blue Nile

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Bahir Dar University

Graduates' tracer study questionnaire

Purpose

Dear respondents, the purpose of this questionnaire is to collect information from graduates of Bahir Dar University. Specifically, the questionnaire is designed to assess your employment experiences so far. Your participation is strictly voluntary and greatly appreciated.The information you provide will assist Bahir Dar University the ways in which future students are being prepared for employment.We assure you that your responses will remain confidential and will be reported only in aggregate form. Through your participation, we can continue to provide BDU students with a high quality education for securing employment.

A. Address, Socio-Biographic Characteristics, Education and Study Conditions of respondents

Name: Animaw yerew. (optional) Cell phone: 0928406126 (optional)

E-mail:__________ (optional) Gender: M Age: 26

Region where you born__________ Year of graduation 2007 CGPA 3.06

Department/field you graduated Rural development and agricultural extension

Was this your preferred field of study? Yes ☑ No ☐ If your answer is NO, please state what study program you would have liked to study__________

Was BDU your preferred university? Yes ☑ No ☐ If your answer is NO, please state which University you would have liked to study__________

Which is the educational level attained by your parents (father and mother or care giver)?

Father	Mother	
☑	☑	Not educated
☐	☐	Primary school
☐	☐	High school
☐	☐	TVET (vocational training)
☐	☐	Higher education
☐	☐	Other education (Church, Quran… Education)
☐	☐	Non-formal education

1

B Job Search and Transition to Work

B1 When did you start looking for a job? *(Please do not include side jobs.)*

Approx. [ ] months BEFORE graduation

Approx. [ ] months AFTER graduation

Self-employment started approx. [ ] months BEFORE graduation

Self-employment started approx. [4] months AFTER graduation

Not applicable, I did not look for a job [ ]

B2 How did you look for jobs? *Multiple answers possible*

- [4] Public advertisement (e.g. newspaper, radio, TV, advertisement boards)
- [ ] Contacting companies directly
- [ ] I checked through the internet
- [ ] I was contacted by the company
- [ ] I contacted a commercial working agency
- [ ] Relations (e.g. parents, relatives, friends)
- [ ] I established my own business
- [ ] Other: .....

B3 How many companies/institutions did you contact so far/ before you got your first job?

[2] Approximate number of companies/institution contacted

B4 How many employers have you worked for (including self-employment) since you have graduated from university?

[1] Number of employers since graduation

C Employment and Work

C1 What describes your current employment situation?

- [4] Employed (including self-employment)
- [ ] I am still studying/ continuing my higher degree or professional courses
- [ ] I am busy with my family and/or children
- [ ] I am doing an internship
- [ ] I am now looking for employment
- [ ] Other: .....

C1a How long did you search for job before you got your first job?

[6] Months

Fenta, H., Asnakew, Z.S., Debele, P.K., Nigatu, S.T, & Muhaba, A.M. (2019). Analysis of supply side factors influencing employability of new graduates: A tracer study of Bahir Dar University graduates. *Journal of Teaching and Learning for Graduate Employability*, *10*(2), 67–85.

C2 If your current status is employed, how did you find your FIRST job after graduation? *Multiple answers possible*

- [x] Public advertisement (e.g. newspaper, radio, TV, advertisement boards)
- [ ] Contacting companies directly
- [ ] I checked through the internet
- [ ] I was contacted by the company
- [ ] I contacted a commercial working agency
- [ ] I found my job during internship
- [ ] Third party's recommendation
- [ ] Relations (e.g. parents, relatives, friends)
- [ ] I established my own business
- [ ] Other,.....
- [ ] Have not found a job yet →*please go to D2* and fill it

C3 If you are employed, who is your employer? Specify the name of the organization.

ጠቅላይ ሚኒስትር ጽ/ቤት

C3a What criteria your employer used in selecting candidates?

- [ ] Competition with CGPA
- [x] Competition with examination
- [x] Competition with written examination
- [ ] Competition with practical test
- [ ] Other (Please Specify) ____

C4 In which region and zone do you work?

Region/City ____ **Zone/Sub city** ____ **woreda** ____

C4a Is this your preferred region to work in?

- [x] Yes
- [ ] No, please state which region you would like to work in .....

C5 What is your current major area of work assignment/position in this organization?

Please specify ____

C6 How many hours do you work per day on average?

[8] Hours

C7 How many days do you work in a week on average?

[6] Days

C8 How long have you been working in this job?

[12] Months

C10 How many employees does your current company have?

- [ ] Less than 6 employees
- [ ] 6-10 employees
- [x] 11-50employees
- [ ] More than 50 employees

C11 What is your approximate monthly gross income from your current MAIN JOB (ET Birr)?

- [ ] Less than 1000 Birr
- [ ] 1001-2000 Birr
- [x] 2001-3000 Birr
- [ ] 3001-5000 Birr
- [ ] 5001-8000 Birr
- [ ] More than 8000 Birr

D Relationships between Study and Work, Work and Competencies

D1 To what extent does your field of study relate to your area of work? (Only for employed person)

Not at all	Not very much	A little bit	To a high extent	To a very high extent	Don't know	
1	2	3	4	5		
[x]	[ ]	[ ]	[ ]	[ ]	[ ]	Relation of study to area of work

D2 To what extent has your study program at the university been a good basis for the following:

	Not at all	Not very much	A little bit	To a high extent	To a very high extent	Don't know
	1	2	3	4	5	
Starting work?	[ ]	[ ]	[ ]	[x]	[ ]	[ ]
Further learning on the job?	[ ]	[ ]	[x]	[ ]	[ ]	[ ]
Performing adequate work tasks?	[ ]	[x]	[ ]	[ ]	[ ]	[ ]
Potential/future career(s)?	[x]	[ ]	[ ]	[ ]	[ ]	[ ]
Your personal development?	[ ]	[ ]	[ ]	[x]	[ ]	[ ]
Development of entrepreneurial skills?	[ ]	[ ]	[ ]	[ ]	[x]	[ ]

4

D3 To what extent are the following competencies utilized/applied in your current work? (Only for employed person)

		Not at all	Not very much	A little bit	To high extent	To a very high extent	Don't know
		1	2	3	4	5	
1	Knowledge of your field(s) or discipline(s)	☐	☐	☐	☐	☑	☐
2	General knowledge	☐	☐	☐	☐	☑	☐
3	Computer and Internet skills	☐	☐	☐	☑	☐	☐
4	Research skills	☐	☑	☐	☐	☐	☐
5	Analytical thinking	☐	☐	☑	☐	☐	☐
6	Problem-solving ability	☐	☐	☐	☑	☐	☐
7	Time management	☐	☐	☐	☑	☐	☐
8	Teamwork ability	☐	☐	☐	☑	☐	☐
9	Project management	☐	☐	☐	☐	☑	☐
10	Ability to present ideas and information	☐	☐	☐	☑	☐	☐
11	Ability to write reports and documents	☐	☐	☐	☐	☑	☐
12	English language skills	☐	☑	☐	☑	☐	☐
13	Initiating change to enhance productivity	☐	☐	☑	☐	☐	☐
14.	Interpersonal Skills	☐	☐	☐	☑	☐	☐

D4 To what extent did the university help you to develop these competencies?

		Not at all	Not very much	A little bit	To high extent	To a very high extent	Don't know
		1	2	3	4	5	
1	Knowledge of your field(s) or discipline(s)	☐	☐	☐	☑	☐	☐
2	General knowledge	☐	☐	☐	☑	☐	☐
3	Computer and Internet skills	☐	☐	☐	☐	☑	☐
4	Research skills	☐	☐	☐	☑	☐	☐
5	Analytical thinking	☐	☐	☐	☑	☐	☐
6	Problem-solving ability	☐	☐	☐	☐	☑	☐
7	Time management	☐	☐	☐	☑	☐	☐
8	Teamwork ability	☐	☐	☑	☐	☐	☐
9	Project management	☐	☐	☐	☑	☐	☐
10	Ability to present ideas and information	☐	☐	☐	☐	☑	☐
11	Ability to write reports and documents	☐	☐	☐	☐	☑	☐
12	English language skills	☐	☐	☐	☑	☐	☐
13	Initiating change to enhance productivity	☐	☐	☐	☑	☐	☐
14.	Interpersonal skills	☐	☐	☐	☑	☐	☐

5

D5 Have you done an internship during your studies?

☑ Yes

☐ No

D6 If yes, To what extent has your former internship been a good basis for...

	Not at all	Not very much	A little bit	To a high extent	To a very high extent	Don't know
	1	2	3	4	5	
Finding a job?	☐	☐	☐	☑	☐	☐
Performing adequate work tasks?	☐	☐	☑	☐	☐	☐
Potential/future career(s)?	☐	☑	☐	☐	☐	☐
Your personal development?	☐	☐	☐	☑	☐	☐
Development of entrepreneurial skills?	☐	☐	☐	☐	☑	☐

Do you think that the working environment in your organization is suitable for employees to perform the above skills? (please write your general comments)

[illegible]

THANK YOU FOR YOUR PARTICIPATION!