



East African Journal of Education Studies

eajes.eanso.org

Volume 8, Issue 1, 2025

Print ISSN: 2707-3939 | Online ISSN: 2707-3947

Title DOI: <https://doi.org/10.37284/2707-3947>



Original Article

Determinants of Time to First Job Acquisition Among 2022 Graduates of East Africa University, Qardho, Somalia

Mustafe Abdi Ali¹*, Hassan Ahmed Hussien¹, Hussein Musse Nouh¹ & Abshir Mohamed Mohamud¹

¹ East Africa University, Qardho, Somalia.

* Author for Correspondence ORCID ID; <https://orcid.org/0009-0001-5626-4211>; Email: mu.awaare@gmail.com

Article DOI: <https://doi.org/10.37284/eajes.8.1.2789>

Date Published: ABSTRACT

20 March 2025

Keywords:

Median Time to First
Job,
Cox Proportional
Hazard Model,
2022 Graduates,
East Africa University.

Background: Many students perceive a university degree as adequate for attaining a job. However, the shift from university to employment is a greater challenge and emerges as a primary issue that graduates encounter after completing their university degrees. Thus, this study aimed to estimate the median time to first job acquisition among 2022 graduates of East Africa University (Qardho Campus), identify predictive factors influencing job acquisition and highlight challenges students faced during their job search. **Methods:** A retrospective cross-sectional study was carried out using a two-year follow-up survey collected from 2022 graduates of East Africa University, Qardho, Somalia. A total of 59 graduates participated, providing data on demographic details, academic background, employment status, and job search strategies. The data were entered into Epi-Data version 4.3 and analyzed using R Programming version 4.4.0. Non-parametric methods, including Kaplan-Meier curves, were used to estimate the median time to first job. Semi-parametric models, such as Cox proportional hazard regression were employed to determine predictive factors that influence the time to first job acquisition. Bivariate and multivariate Cox regression analyses were performed to identify significant factors influencing time to first job. **Results:** Out of the total of students, 40(67.8%) secured their first job and 19(32.2%) were censored. The median time to first job acquisition among 2022 graduates of East Africa University was estimated to be 10 months. Gender, age, internship participation, and the number of positions applied for were predictive factors influencing the time to first job acquisition. Female graduates had a hazard ratio of 0.5342 ($p = 0.0375$, 95% CI: 0.2897–0.7014), indicating that females were 46.6% less likely to secure their first job compared to male graduates at any given time. In accordance with the challenges faced by the students, 15(25.4) students responded facing corruption in the hiring process, 14(23.7) students lacked relevant work experience, 12(20.3) students experienced a lack of job openings, 8(13.6) students encountered nepotism or favouritism, 6(10.2) students were not shortlisted for written exams or interviews, and 4(6.8) students faced poor networking or connections. **Conclusion:** The median time to first job acquisition among 2022 graduates of East Africa University was 10 months. Gender, age, internship participation, and the number of positions applied for were identified as significant predictive factors influencing the time to first job acquisition. Students faced several challenges during their job search, with the most common issue being corruption in the hiring process, lack

of relevant work experience, and a shortage of job openings, all of which contributed to delays in securing employment.

APA CITATION

Ali, M. A., Hussen, H. A., Nouh, H. M. & Mohamud, A. M. (2025). Determinants of Time to First Job Acquisition Among 2022 Graduates of East Africa University, Qardho, Somalia. *East African Journal of Education Studies*, 8(1), 584-596. <https://doi.org/10.37284/eajes.8.1.2789>

CHICAGO CITATION

Ali, Mustafe Abdi, Hassan Ahmed Hussen, Hussein Musse Nouh and Abshir Mohamed Mohamud. 2025. "Determinants of Time to First Job Acquisition Among 2022 Graduates of East Africa University, Qardho, Somalia". *East African Journal of Education Studies* 8 (1), 584-596. <https://doi.org/10.37284/eajes.8.1.2789>

HARVARD CITATION

Ali, M. A., Hussen, H. A., Nouh, H. M. & Mohamud, A. M. (2025) "Determinants of Time to First Job Acquisition Among 2022 Graduates of East Africa University, Qardho, Somalia", *East African Journal of Education Studies*, 8(1), pp. 584-596. doi: 10.37284/eajes.8.1.2789

IEEE CITATION

M. A. Ali, H. A. Hussen, H. M. Nouh & A. M. Mohamud "Determinants of Time to First Job Acquisition Among 2022 Graduates of East Africa University, Qardho, Somalia" *EAJES*, vol. 8, no. 1, pp. 584-596, Mar. 2025. doi: 10.37284/eajes.8.1.2789.

MLA CITATION

Ali, Mustafe Abdi, Hassan Ahmed Hussen, Hussein Musse Nouh & Abshir Mohamed Mohamud. "Determinants of Time to First Job Acquisition Among 2022 Graduates of East Africa University, Qardho, Somalia". *East African Journal of Education Studies*, Vol. 8, no. 1, Mar. 2025, pp. 584-596, doi:10.37284/eajes.8.1.2789

INTRODUCTION

Employability is a multifaced concept that can be defined differently depending on the intended use ¹. Some definitions associate it with immediate full-time employment of graduates within 6 months of graduation. However, when considering international higher education policies and plans, the matter of higher education and the graduate labour market is examined more comprehensively and extensively ². Employability is often linked and analyzed in connection with several factors such as socio-biographic background information, the learning environment in higher education, the curriculum, individual study habits and abilities (both technical and interpersonal skills), job search strategies, and the period of transition for graduates ³⁻⁸.

Graduate unemployment or delayed employment is mostly caused by the insufficient acquisition of soft or non-technical skills among graduates, as well as a lack of proficiency in entrepreneurial abilities ⁹⁻¹², and a shortage of financial resources to create employment opportunities ¹³. Globally, it has been reported that a significant number of individuals who have completed higher education programs encounter unfavourable job opportunities due to various factors including the performance of higher education institutions, rapid technological

advancements, and shifting perceptions of work in highly developed nations ¹⁴.

Considerable focus has been directed toward the increasing unemployment rate among individuals who have completed their higher education in numerous countries, particularly those considered to be developed. Nevertheless, developing nations face a more urgent challenge in achieving consistent economic growth by increasing the size of their educated labour force ¹⁵. The issue of recently graduated students achieving employment immediately after graduation is rising. The lack of speedy jobs continues to be the most persistent challenge for both developed and developing nations ¹⁶.

Many students view a university degree as adequate for attaining a job ¹⁷. Nevertheless, the shift from university to employment is a greater challenge and emerges as a primary issue that graduates encounter after completing their university degrees ¹⁸. Graduation marks a shift from being unemployed to becoming employed in the workforce, but frictional unemployment may occur due to temporary mismatches in the labour market ¹⁹. Moreover, the current economic recession, increased enrollment in higher education, and improved availability of educational facilities have intensified the competition in the job market for degree holders,

resulting in significant delays in job acquisition for many graduates ²⁰.

Researchers have explored various aspects of unemployment. For instance, a study conducted in Brazil identified gender, age, race, location, education level, and area as factors influencing long-term unemployment, revealing that Brazilian workers experienced unemployment for over a year, with women taking longer to secure employment than men, suggesting the presence of gender discrimination in the Brazilian labour market ³. Similarly, other studies have indicated that discipline type, graduate's achievement, gender, residence, family background, and graduate job-hunting skills as determinants of graduate unemployment ^{4, 7, 8, 17}.

The duration of time required for graduates to secure their first job is influenced by the general attributes of the graduates, as well as a range of economic, social, and institutional factors ²¹. However, the duration of the waiting period and the potential factors influencing it have not been adequately established. Despite a little systematic research undertaken on this matter, the findings obtained are varied and inconclusive ²².

For example, a study conducted in Shandong province, China, identified college reputation, major fields, grade average, gender, non-cognitive skills, and internship status as significant factors influencing employment and unemployment among recent graduates. Graduates from higher-reputation colleges and those with successful completion of internships were more likely to secure jobs. The findings of this study indicated no substantial discrepancy in job search outcomes between female and male graduates in fields such as economics, management, and engineering ⁷.

In Ethiopia, a study conducted in 2022 on 2019 first-degree graduates from Debre Markos University (Burie campus), revealed that the median waiting time for initial employment was approximately 35 weeks, significantly influenced by cumulative grade point average, gender, internship experience, and age of the graduates ²².

In Somalia, recent graduates face significant difficulties in securing employment, since thousands

of young individuals from local universities and other institutions enter the labour market annually, which is unable to accommodate them. The number of graduates from local universities is rising, due to the growing number of universities in the country, particularly in Mogadishu, the capital city of Somalia ¹⁵. According to the UNDP, the youth unemployment rate in Somalia exceeds 67%, one of the highest globally, with rates reaching 74% among youth and women, and 37.4% for individuals aged 15 to 24 ²³. A study on 2018 first-degree graduates of SIMAD University in Mogadishu, Somalia, indicated that the median duration for these university graduates to transition out of unemployment was about three months, with gender, cumulative GPA, part-time employment experience, degree type, and age significantly influence the likelihood of exiting unemployment ¹⁵.

Despite numerous studies on graduate unemployment in Somalia ²⁴⁻²⁶, research on the factors that determine the length of time it takes for graduates in Somalia, particularly in Puntland, to find their first job is limited. Accordingly, this study was intended to fill this knowledge gap by applying advanced statistical modelling approaches to estimate the median time to first job acquisition among 2022 graduates of East Africa University Qardho Campus and to identify factors that influence the time it takes for them to find employment. Additionally, the study examined the specific challenges that these graduates faced during their transition from education to the job market. As such, conducting this research is crucial as the findings of this study are expected to provide educational institutions and policymakers with information regarding the necessary support systems and interventions that are required to improve employability outcomes for future graduates.

METHODS AND MATERIALS

Data Collection Tools and Procedures

The data for this study was sourced from a follow-up survey conducted by East Africa University Qardho Campus. The university undertook this initiative to assess the employment outcomes and challenges faced by its 2022 graduates. To achieve this, the university recruited four enumerators who

conducted data collection through a combination of phone interviews and online surveys. Graduates residing within the country were contacted via phone, where enumerators posed questions directly and recorded responses in real-time. For those who were unavailable for phone interviews, the enumerators shared a KOBO Toolbox link, enabling respondents to complete the survey online at their convenience.

Prior to data collection, enumerators received intensive training to ensure a comprehensive understanding of the survey objectives, questionnaire content, and ethical considerations. The training emphasized the importance of obtaining verbal consent and safeguarding participant confidentiality.

Efforts were made to enhance the response rate, such as sending follow-up reminders to non-respondents and leveraging alumni networks to promote participation. The questionnaire was adopted and modified from several previous related studies^{2, 5, 22}, and then organized based on the objectives of the study. The comprehensive nature of the survey captured diverse and relevant information, such as demographic details, academic background, employment status, job search strategies, and socio-economic factors. According to the Registrar's Office of East Africa University, 83 undergraduate students graduated in 2022. Accordingly, 59 graduates filled out the questionnaire and were used for this study.

Study Design

A retrospective cross-sectional study design was employed as it is suitable for analyzing the determinants of an outcome (time to first job) based on data collected retrospectively².

Source Population

All 2022 graduates of East Africa University (Qardho Campus).

Study Population

The study includes all graduates from the 2022 cohort of East Africa University Qardho Campus who participated in the university's survey.

Study Variables

Dependent Variable

The dependent variable is the time it takes for a student to secure his/her job.

Independent Variables

The independent variables that were considered for this study are: sex, age, marital status, Internship participation, CGPA, department, number of positions applied, and job-seeking techniques.

Data Processing and Analysis

The completeness of the data was carefully verified and coded appropriately. Errors were identified and addressed promptly after reviewing the original data. The data were then entered into Epi-Data version 4.3 and exported to R Programming version 4.4.0 for analysis. Survival modelling was applied to estimate the median time to first job acquisition and to identify predictive factors. The analysis began with descriptive statistics, followed by the generation of survival curves, including Kaplan-Meier curves. Non-parametric methods, such as the log-rank test, were used to assess whether there were any significant differences in time to first job acquisition across the levels of categorical variables. The Cox-proportional hazard regression model was utilized, and its assumption was checked using the Schoenfeld residual test. Both bivariate and multivariate analyses were performed. During bivariate analyses, variables with a p-value less than or equal to 0.20 were selected as candidates for multivariate analysis. In the multivariate analysis, variables with a p-value less than or equal to 0.05 were identified as significant predictive factors influencing the survival time to first job acquisition among the 2022 graduates of East Africa University.

RESULTS

In this study, 40(67.8%) of the students secured their first job, while 19(32.2%) were censored during the follow-up period. As summarized in Table 1, 31(52.5%) of the students were male while 28(47.5%) were female. The employment rate was higher among males (77.4%), compared to females (57.1%). Conversely, the proportion of censored cases was higher among females (42.9%), compared

to males (22.6%). The log-rank test indicated that the time to first job acquisition differed significantly between males and females, with a p-value below the predetermined alpha level of 0.05.

In terms of age distribution, 28(47.5%) of the students were aged between 20-25 years, 26(44.0%) were between 25-30 years, and 5(8.5%) were between 30-35 years. Students aged 30-35 years demonstrated the highest employment rate (100.0%), followed by those aged 25-30 years (76.9%), and 20-25 years (53.6%). The log-rank test confirmed that the time to first job acquisition varied significantly among the age groups, with a p-value of 0.03.

Regarding the fields of study, 20(33.9%) of the students studied Business Administration, 16(27.1%) studied Clinical Officer, 14(23.7%) studied Public Administration, and 9(15.3%) studied Sharia. Business Administration students demonstrated the highest employment rate (70.0%),

followed by Clinical Officer (68.8%), Sharia (66.7%), and Public Administration (64.3%). The log-rank test revealed that the time to first job acquisition among fields of study was not statistically significant, as the p-value was 0.09, which exceeds 0.05. The study also found that 52(88.1%) of the students had not received consultant services related to job hunting skills, such as resume building and job search strategies, from the university, while only 7(11.9%) responded receiving such services.

Finally, 42(71.2%) of students had not participated in an internship, while 17(28.8%) had received internship opportunities. Students with internship experience had a higher employment rate (70.6%) compared to those without internships (66.7%). The log-rank test showed that this difference in time to first job acquisition was statistically significant, as the p-value was lower than 0.05.

Table 1: East Africa University 2022 Graduates' Employment Status by Their Characteristics and the P-values for the Log-rank Test of Equality of Survivor Functions.

Variable	Labels	Status of students			P-value
		Total	Employed	Censored	
Sex	Male	31(52.5)	24(77.4)	7(22.6)	0.01
	Female	28(47.5)	16(57.1)	12(42.9)	
Age	20-25	28(47.5)	15(53.6)	13(46.4)	0.03
	25-30	26(44.0)	20(76.9)	6(23.1)	
	30-35	5(8.5)	5(100.0)	(0.0)	
	Married	18(30.5)	13(72.2)	5(27.8)	0.08
Marital status	Single	41(69.5)	27(65.9)	14(34.1)	
Residence	Urban	41(69.5)	27(65.9)	14(34.1)	0.06
	Rural	18(30.5)	13(72.2)	5(27.8)	
Department	Business Administration	20(33.9)	14(70.0)	6(30.0)	0.09
	Clinical Officer	16(27.1)	11(68.8)	5(31.2)	
	Public Administration	14(23.7)	9(64.3)	5(35.7)	
	Sharia	9(15.3)	6(66.7)	3(33.3)	
Cumulative Grade Point Average (CGPA)	2.0-2.5	4(6.8)	2(50)	2(50)	0.09
	2.5-3.0	6(10.2)	4(66.7)	2(33.3)	
	3.0-3.5	33(55.9)	24(72.7)	9(27.3)	
	3.5-4.0	16(27.1)	10(62.5)	6(37.5)	
Father's highest level of education	Not educated	17(28.8)	11(64.7)	6(35.3)	0.7
	Primary School	20(33.9)	15(75.0)	5(25.0)	
	Secondary School and above	22(37.3)	14(63.6)	8(36.4)	
Mother's highest level of education	Not educated	22(37.3)	18(81.8)	4(18.2)	0.3
	Primary School	18(30.5)	12(66.7)	6(33.3)	
	Secondary School and above	19(32.2)	10(52.6)	9(47.4)	

Variable	Labels	Status of students			P-value
		Total	Employed	Censored	
Ever received any consultant services from the University related to job-hunting skills?	No	52(88.1)	36(69.2)	16(30.8)	0.5
	Yes	7(11.9)	4(57.1)	3(42.9)	
Internship	No	42(71.2)	28(66.7)	14(33.3)	0.006
	Yes	17(28.8)	12(70.6)	5(29.4)	

Job-seeking Criteria

According to the results shown in Table 2, 33(55.9%), students sought jobs through relations with parents, relatives, and/or friends, while 26(44.1%) relied on public advertisements. Students who sought jobs through relations with their parents, relatives and/or friends demonstrated a slightly higher employment rate (72.7%) compared to those who sought jobs through public advertisements (61.5%). The log-rank test showed that this difference in time to first job acquisition was not statistically significant, as the p-value was higher than 0.05.

Regarding the number of positions applied for, 30(50.8%) students applied for 0-4 positions, 20(33.9%) applied for 5-9 positions, and 9(15.3%) applied for 10 or more positions. Students who applied for 0-4 positions demonstrated the highest proportion of censored data, indicating the lowest likelihood of securing employment. Conversely, students who applied for 10 or more positions had the lowest proportion of censored data, demonstrating the highest likelihood of employment. The log-rank test demonstrated that there was a statistically significant in time to first job acquisition among the number of positions applied for, as the p-value was lower than 0.05.

Table 2: East Africa University 2022 Graduates' Employment Status by Their Job-seeking Criteria and the P-values for the Log-rank Test of Equality of Survivor Functions.

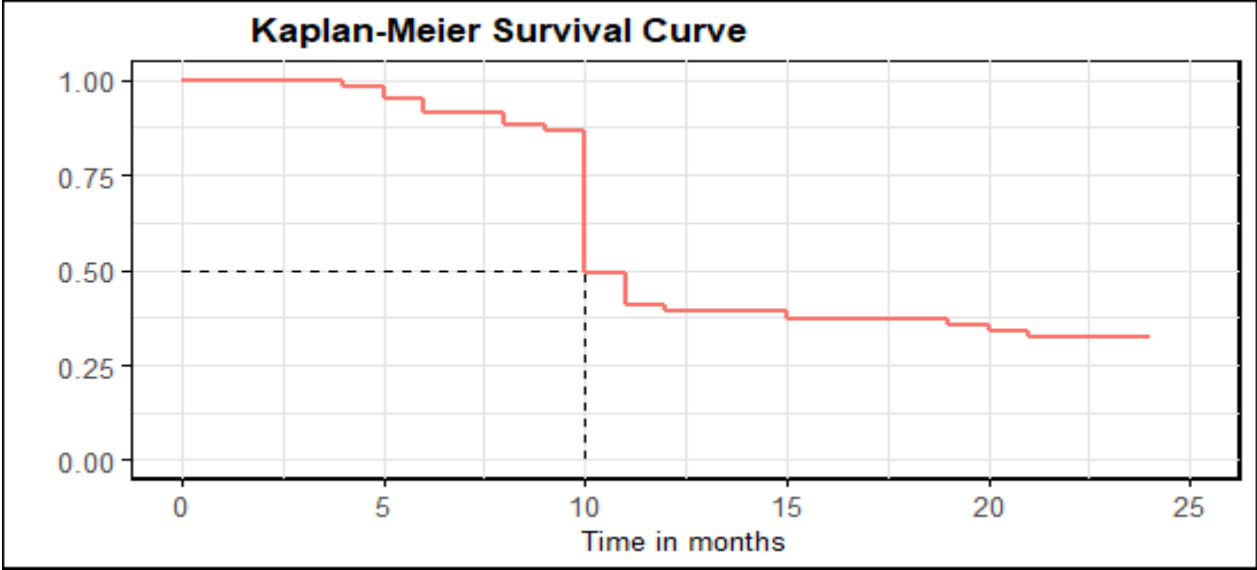
Variable	Labels	Status of students			P-value
		Total	Employed	Censored	
Job-seeking techniques	Relations with parents, relatives, and/or friends	33(55.9)	24(72.7)	9(27.3)	0.09
	Public advertisements	26(44.1)	16(61.5)	10(38.5)	
Job-seeking experience	Very difficulty	21(35.6)	10(47.6)	11(52.4)	0.1
	Difficulty	13(22.0)	10(76.9)	3(23.1)	
	Neutral	14(23.7)	11(78.6)	3(21.4)	
	Easy	8(13.6)	6(75.0)	2(25.0)	
Number of positions applied	Very easy	3(5.1)	3(100.0)	0(0.0)	0.004
	0-4	30(50.8)	17(56.7)	13(43.3)	
	5-9	20(33.9)	15(75.0)	5(25.0)	
	10 or more	9(15.3)	8(88.9)	1(11.1)	

Kaplan-Meier Estimator

Survival time distributions for time to first job among students were estimated using the Kaplan-Meier (KM) method. As shown in Figure 1 below, the horizontal axis represents the time to the first job, while the vertical axis represents the survival probability $S(t) = P(T > t)$. Initially, the survival curve starts at $S(0) = 1$, indicating that all students

were event-free at the start. The curve gradually increases until approximately the 4-month mark, suggesting that students had a higher probability of remaining jobless during the early period. After 4 months, the curve begins to decline, with a median time to first job acquisition of 10 months. This decline reflects a decrease in the survival probability over time, indicating that more students secured jobs as time progressed.

Figure 1: Kaplan Meier Curve for Time to First Job among Students

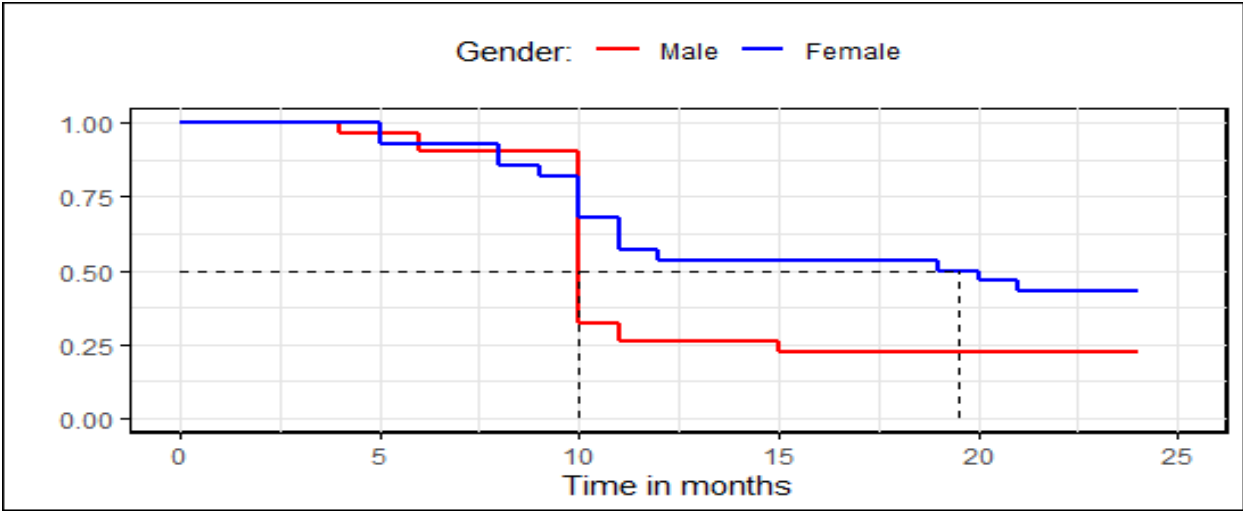


Comparing the Survival Time of Male and Female Students

As illustrated in Figure 2, a comparison was made between the median time to first job acquisition for males and females. The x-axis represents the time in months, while the y-axis shows the proportion of students who have not yet acquired their first job. For male students, the survival curve shows a steeper

decline, indicating a faster rate of job acquisition with a median time of 10 months. This suggests that males tend to secure their first job more quickly. In contrast, the survival curve for female students descends more gradually, highlighting a slower job acquisition rate compared to their male counterparts. The median time for females to acquire their first job was approximately 19 months.

Figure 2: Estimated Survival Time for Gender Category



Checking the Proportional Hazard Assumption Using Schoenfeld Residual

The Cox proportional hazards model assumes that the effect of covariates on the hazard rate does not change over time²⁷. As such, the Schoenfeld residual was used to determine whether the proportional hazards (PH) assumption was fulfilled or not. A

variable that has an insignificance p-value is said to have fulfilled the proportionality assumption. As Table 3 demonstrates, most variables had a p-value greater than the predetermined significance value, which is 0.05, which means they did not demonstrate any violation regarding the proportionality assumption. However, the department and number of positions applied have shown a small p-value,

which means those two variables violated the assumption. To test those two controversial findings, the global test result was used and it indicated that the p-value is insignificant (p-value = 0.126). This

implies that there is enough evidence to conclude that the proportional hazard assumption is not violated.

Table 3: Proportional Hazard Assumption

Covariate	Chi-Square	DF	p-value
Sex	1.3536	1	0.245
Age	1.3039	2	0.521
Marital status	2.1851	1	0.139
Internship	0.0219	1	0.882
CGPA	6.7165	3	0.082
Department	8.052	3	0.045
Number of positions applied	7.5750	2	0.023
Job-seeking techniques	2.4384	1	0.118
Global test	20.1264	14	0.126

DF = Degree of freedom

Univariate Cox Regression Model for East Africa University's 2022 Graduates

Since the proportional hazards assumption was not violated, the Cox proportional regression model was used. As shown in Table 4, univariate Cox regression analysis was performed to examine the effect of different covariates on the time it takes for students to secure their first job, and determine the variables that should be included in the multivariate Cox regression analysis. The findings of the

univariate analysis indicated that sex, age, internship, number of positions applied, and job search techniques were statistically significant for the univariate Cox regression model at a significance level of 20%. On the other hand, marital status, department, and Cumulative Grade Point Average (CGPA) did not demonstrate statistical significance at 20% level. Therefore, all predictive factors that demonstrated statistical significance were included in the multivariate Cox regression analysis.

Table 4: Univariate Cox Regression Model

Variable	Category	H. R	P-value	95%Conf.Inter.	
Sex	Male [®]				
	Female	0.5342	0.0552	0.2815	1.014
Age	20-25	0.4142	0.0099	0.212	0.8092
	25-30	0.960	0.0001	0.9305	0.9800
Marital status	Singal [®]				
	Married	1.00	0.999	0.5158	1.941
Department	Business Administration [®]				
	Public Administration	0.9605	0.925	0.4157	2.220
	Clinical Officer	1.0938	0.824	0.4961	2.412
	Sharia	0.9845	0.975	0.3782	2.563
CGPA	2.0-2.5 [®]				
	2.5-3.0	1.482	0.611	0.3247	6.766
	3.0-3.5	1.584	0.532	0.3742	6.707
	3.5-4.0	1.724	0.529	0.3157	9.418
Internship	No [®]				
	Yes	1.2373	0.0538	0.6283	2.436
Number of positions applied	0-4 [®]				
	5-9	1.226	0.06342	0.5291	2.843

Variable	Category	H. R	P-value	95%Conf.Inter.	
Job-seeking techniques	10 or more	2.487	0.0122	1.2201	5.068
	Relations with parents, relatives, and friends [®]				
	Public advertisements	0.5762	0.085	0.3076	1.079

H. R = Hazard Ratio; Conf. Interval = Confidence interval; ® = Reference

Multivariate Cox Regression Model for East Africa University's 2022 Graduates

The multivariate Cox regression analysis of time to first job acquisition for students was conducted by excluding the insignificant variables in the univariate Cox regression model. The backward elimination method was used to select the final significant covariates. According to the result in Table 5, sex, age, internship, and number of positions applied for were statistically significant for the multivariate Cox regression model at a significance level of 5%. The p-values for these variables were less than the predetermined alpha level of 0.05, indicating that they were statistically significant.

The results of the Cox Proportional Hazards (CPH) model provide insight into the factors influencing the time to first job acquisition among 2022 graduates of East Africa University, Qardho, Somalia. A hazard ratio (HR) greater than one indicates an increased likelihood of securing a first job at any given time, while an HR less than one suggests a decreased likelihood of securing a first job.

As demonstrated in Table 5, sex showed a significant impact on time to first job acquisition. Female graduates had a hazard ratio of 0.5342 ($p = 0.0375$, 95% CI: 0.2897–0.7014), indicating that females

were 46.6% less likely to secure their first job compared to male graduates at any given time. Age was also a significant determinant. Graduates aged 20-25 had an HR of 0.4142 ($p = 0.0049$; 95% CI: 0.8202–0.9601), while those aged 25-30 had an HR of 0.4825 ($p = 0.0008$; 95% CI: 0.2348–0.9914). This means graduates aged 20-25, and 25-30 were 58.6% and 51.8% less likely, respectively, to secure their first job compared to graduates aged 30-35 years.

Participation in internships significantly influenced the likelihood of job acquisition. Graduates who participated in internships had an HR of 1.7824 ($p = 0.0146$; 95% CI: 1.0239–3.1020), meaning they were 1.78 times more likely to secure their first job compared to those who did not participate in internships. The number of positions applied for was another critical factor. Graduates who applied for 5-9 positions had an HR of 1.0896 ($p = 0.0324$; 95% CI: 1.0269–2.6812), indicating an 8.9% higher likelihood of securing their first job compared to those who applied for 0-4 positions. Furthermore, graduates who applied for 10 or more positions had a hazard ratio of 2.3133 ($p = 0.0291$; 95% CI: 1.6075–4.3219), making them 2.31 times more likely to secure their first job compared to those who applied for 0-4 positions.

Table 5: Multivariate Cox Regression Model

Variable	Category	H. R	P-value	95%Conf.Inter.	
Sex	Male [®]				
	Female	0.5342	0.03752	0.2897	0.7014
Age	20-25	0.4142	0.0049	0.8202	0.9601
	25-30	0.48250	0.0008	0.2348	0.9914
Internship	No [®]				
	Yes	1.7824	0.0146	1.0239	3.1020
Number of positions applied	0-4 [®]				
	5-9	1.0896	0.0324	1.0269	2.6812
	10 or more	2.3133	0.0291	1.6075	4.3219

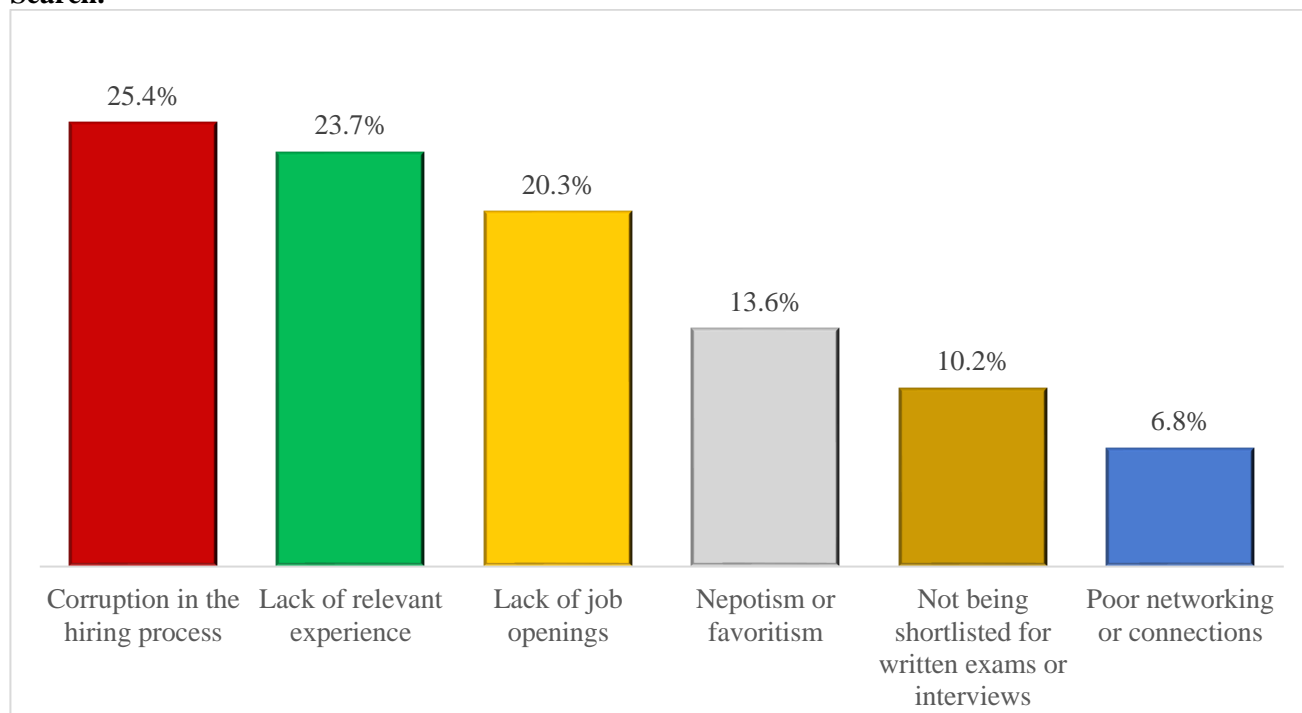
H.R = Hazard Ratio; Conf. Interval = Confidence interval; ® = Reference

Challenges Encountered by 2022 Graduates of East Africa University (Qardho Campus)

The challenges faced by the 2022 graduates of East Africa University were analyzed, as illustrated in Figure 3. The results indicated that 15(25.4) students reported facing corruption in the hiring process,

14(23.7) students lacked relevant experience, 12(20.3) students experienced a lack of job openings, 8(13.6) students encountered nepotism or favoritism, 6(10.2) students were not shortlisted for written exams or interviews, and 4(6.8) students faced poor networking or connections during their job search.

Figure 3: Challenges Encountered by 2022 Graduates of East Africa University during their Job Search.



DISCUSSION

The result of this study revealed that the median time to first job acquisition among 2022 graduates of East Africa University was estimated to be 10 months. This indicates that half of the students secured their first job within 10 months, while the other half took longer. This duration is a longer time compared to a study conducted in Somalia (4 months),¹⁵ and Ethiopia (5 months)²⁸; however, it is shorter than studies conducted in Sri Lanka²¹, and Ethiopia^{2, 5, 22}. This variation may be attributed to differences in study area, sample size, fields of study, and years of graduation.

The study showed that males were more likely to secure first jobs than females. This finding is in line with previous studies conducted in Somalia¹⁵, Ethiopia⁵, and Tanzania²⁹, but it contradicts the results of a study conducted in China by Kong³⁰. This gender disparity could be attributed to cultural

norms and differences in societal priorities or expectations regarding gender roles and productivity in the workforce. For example, in Somalia, societal priorities significantly affect the time to first job acquisition, particularly with regard to gender. Society tends to prioritize job opportunities for males over females. This bias, along with a lack of encouragement for fresh female graduates to seek jobs independently, often delays their entry into the work force. Women may feel less empowered to pursue employment opportunities on their own due to societal priorities, and in some cases, pressure to focus on family responsibilities.

The results of this study indicated that age is a significant factor influencing the time to first job acquisition, with older graduates being more likely to secure their first job compared to younger ones. This finding aligns with studies conducted by Mehmetaj and Zulfiu Alili³¹; Eyland and Johnson³²;

however, it contradicts the findings of a study conducted by Ali and Mohamed ¹⁵. This discrepancy could be attributed to regional differences in job markets, cultural variations, or the nature of employers that were targeted in the respective studies. Older graduates often secure jobs more quickly due to their maturity, and broader social networks, which enhance their employability. They may also have prior work experience, even informally, and a stronger sense of agency to join the workforce, making them more proactive and strategic in their job search.

The study also revealed that participating in an internship is a significant covariate influencing time to first job acquisition. Graduates who completed an internship were more likely to secure employment compared to those who did not. This finding is in line with a study conducted by Alemu ²²; however, it contradicts the findings of Adelo ². This difference could be explained by variations in the quality and completeness of the internship programmes, the graduate's level of proactivity, or differences in sample size and study location. The study also showed that the number of positions applied is a significant covariate affecting time to first job acquisition. Graduates who applied for 10 or more positions were more likely to secure their first job compared to those who applied for fewer positions. This result is with a study conducted by Adelo ².

Regarding the challenges faced by students during their job search, the most common issue reported was corruption in the hiring process 15(25.4), followed by a lack of relevant work experience 14 (23.7), and a shortage of job openings 12(20.3). These findings suggest that encountered corruption, inadequate experience, and limited job availability are significant barriers, contributing to delays in students securing employment.

CONCLUSION

The median time to first job acquisition among 2022 graduates of East Africa University was 10 months. Gender, age, internship participation, and the number of positions applied for were identified as significant predictive factors influencing the time to first job acquisition. Students faced several challenges during their job search, with the most common issue being corruption in the hiring process,

lack of relevant work experience, and a shortage of job openings, all of which contributed to delays in securing employment.

Recommendations

Based on the findings of the study, the following recommendations are provided:

For the University

- The university should strengthen career services by offering its students more comprehensive job-search resources, including workshops on resume-building, interview techniques, and networking strategies.
- The university should enhance internship placement programs to ensure that all students have access to relevant work experience before graduation.
- The university should provide additional support for female students to overcome societal barriers and empower them to seek employment independently.

For the Students

- Students should apply for a wide range of positions, as applying for more job opportunities increases the likelihood of securing employment.
- Students should actively pursue internships or volunteer opportunities to build relevant work experience and improve employability.
- Students should continuously develop professional skills and qualifications to meet the demands of the job market.

For the Government and Organizations

- The government should take action to reduce corruption in the hiring process by enforcing regulations and promoting transparency in recruitment.
- Organizations should create more internships and entry-level job opportunities for fresh graduates.

- Both government and private companies should focus on creating areas with more job openings, allowing students to seek employment or internships.

Authors Contribution

The authors played a crucial role in shaping the overall study concept, including designing the research methodology, collecting data, and conducting analysis and interpretation of the findings. They were actively involved in drafting the manuscript, making essential revisions, and selecting an appropriate journal for submission. The authors reviewed and approved the final version of the paper, taking full responsibility for its content.

Acknowledgement

The authors extend their heartfelt thanks to all those who offered support and made contributions to this research at any stage.

Conflict of Interest

The authors confirm that there are no conflicts of interest associated with the research, authorship, or publication of this paper.

Data Availability

The data underlying the findings of this study are available from the corresponding author upon reasonable request.

REFERENCES

1. Knight P, Yorke M. Learning, curriculum and employability in higher education: Routledge Falmer London; 2004.
2. Adelo Wobse B, Haile Menuta Y, Debu Liga A. Modeling of waiting time to first employment of graduates at Wolkite University, Ethiopia: Application of accelerated failure time models. *Cogent Education*. 2022;9(1):2143032.
3. Arruda EF, Guimarães DB, Castelar I, Castelar PU. Determinants of long-term unemployment in Brazil in 2013. *International Journal of Economics and Finance*. 2018;10(6):53-64.
4. Dania J, Bakar AR, Mohamed S. Factors Influencing the Acquisition of Employability Skills by Students of Selected Technical Secondary School in Malaysia. *International Education Studies*. 2014;7(2):117-24.
5. Getie Ayaneh M, Dessie AA, Ayele AW. Survival models for the analysis of waiting time to first employment of new graduates: a case of 2018 Debre Markos university graduates, northwest Ethiopia. *Education Research International*. 2020;2020(1):8877504.
6. Demissie MM, Herut AH, Yimer BM, Bareke ML, Agezew BH, Dedho NH, et al. Graduates' unemployment and associated factors in Ethiopia: analysis of higher education graduates' perspectives. *Education Research International*. 2021;2021(1):4638264.
7. Jun K. Factors affecting employment and unemployment for fresh graduates in China. *Unemployment: Perspectives and Solutions*. 2017;53.
8. Niragire F, Nshimiyiryo A. Determinants of increasing duration of first unemployment among first degree holders in Rwanda: a logistic regression analysis. *Journal of Education and Work*. 2017;30(3):235-48.
9. Shakir R. Soft skills at the Malaysian institutes of higher learning. *Asia Pacific Education Review*. 2009;10:309-15.
10. Groh M, Krishnan N, McKenzie DJ, Vishwanath T. Soft skills or hard cash? The impact of training and wage subsidy programs on female youth employment in Jordan. *The Impact of Training and Wage Subsidy Programs on Female Youth Employment in Jordan* (July 1, 2012) World Bank Policy Research Working Paper. 2012(6141).
11. Majid S, Liming Z, Tong S, Raihana S. Importance of soft skills for education and career success. *International Journal for Cross-Disciplinary Subjects in Education*. 2012;2(2):1037-42.
12. Sławińska K, Villani CS. Gaining and strengthening 'soft skills' for employment. *Edukacja Ustawiczna Dorosłych*. 2014;3(86):44-53.

13. Batu MM. Determinants of youth unemployment in urban areas of Ethiopia. *International Journal of Scientific and Research Publications*. 2016;6(5):343-50.
14. Teichler U. Graduate employment: Challenges for higher education in the twenty-first century. *Higher Education in Europe*. 1997;22(1):75-84.
15. Ali DA, Mohamed J, Midi H. Modelling the Determinants of Unemployment Exit Duration among Graduates in a Fragile State: A Case of Somalia. *JOURNAL OF SOMALI STUDIES: Research on Somalia and the Greater Horn of African Countries*. 2022;9(2).
16. Eita JH, Ashipala JM. Determinants of unemployment in Namibia. *International Journal of Business and Management*. 2010;5(10):92.
17. Jackson D. Factors influencing job attainment in recent Bachelor graduates: evidence from Australia. *Higher Education*. 2014;68:135-53.
18. Akalu GA. Higher education 'massification' and challenges to the professoriate: do academics' conceptions of quality matter? *Quality in higher education*. 2016;22(3):260-76.
19. Ariyawansa R. Employability of graduates of Sri Lankan universities. *Sri Lankan Journal of Human Resource Management*. 2013;2(1).
20. Tomlinson M. Graduate employability and student attitudes and orientations to the labour market. *Journal of education and work*. 2007;20(4):285-304.
21. Jayamanne IT, Ramanayake KA. A study on the waiting time for the first employment of arts graduates in Sri Lanka. *International Journal of Computer and Information Engineering*. 2017;11(12):1234-42.
22. Alemu M, Yismaw B. Understanding Waiting Time from Graduation to First Employment: Survival Analysis-Based Evidence from Ethiopia. *Education Research International*. 2022;2022(1):9001679.
23. Somalia U. Somalia Human Development Report: Empowering Youth for Peace and Development. United Nations Development Programme Somalia. 2012.
24. Warsame ZA, Mohamed ISA. On the Determinants of Unemployment in Somalia: What is the Role of External Debt? *International Journal of Sustainable Development and Planning*. 2024;19(1):161-5.
25. Dhaqane M, Lyaro S. DETERMINANTS OF UNEMPLOYMENT IN SOMALIA. 2013.
26. Ahmed A. The Reasons Why the Unemployment Rate of Graduates is Increasing in Mogadishu-Somalia. *Journal of Developing Country Studies*. 2023;7(2):26-53.
27. Khanal SP, Sreenivas V, Acharya SK. Accelerated failure time models: an application in the survival of acute liver failure patients in India. *Int J Sci Res*. 2014;3(6):161-6.
28. Fenta HM, Asnakew ZS, Debele PK, Nigatu ST, Muhaba AM. 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*. 2019;10(2):67-85.
29. Nikusekela NE, Pallangyo EM. Analysis of supply side factors influencing employability of fresh higher learning graduates in Tanzania. *Global Journal of Human-Social Science Economics*. 2016;16(1).
30. Kong J, editor Factors affecting employment, unemployment, and graduate study for university graduates in Beijing. *Advances in Applied Economics, Business and Development: International Symposium, ISAEBD 2011, Dalian, China, August 6-7, 2011, Proceedings, Part II*; 2011: Springer.
31. Mehmetaj N, Zulfiu Alili M. Employment of economics graduates: does GPA matter? *Interdisciplinary Description of Complex Systems: INDECS*. 2021;19(2):210-26.
32. Eyland EA, Johnson LW. The Transition from Full-Time Study to Work. *Australian Journal of Statistics*. 1989;31(1):213-25.