

College of Technology (COT) graduates, employability, trends, challenges and opportunities for future curricular reforms

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Abstract

Employment among graduates faces challenges in a fast paced and industrialized environment considering the competitiveness of the global market. The tracer study investigated graduate's profiles from Central Bicol State University of Agriculture- Calabanga campus, College of Industrial Technology; Automotive Technology, Electrical Technology, Electronics Technology, Refrigeration and Air-conditioning Technology Hotel and Restaurant Management and Food and Beverage Technology. Using Google Forms and Facebook Messenger, researchers traced three hundred and twenty BSIT graduates from batch 2018, 2019, 2020, 2021, and 2022. This study highlighted the employment profile and skills of the BSIT graduates after acquisition of their degrees. A large number were employed under private institutions with 1-6 months of time-lag after graduation. Salary and benefits and career challenge revealed graduate's primary reason for their employment. Problem solving, communication and IT-related skills were the main work-related values that graduates exhibit in employment but lack critical thinking and entrepreneurial skill. Curriculum revision and program enhancement skills were advised to include in the current course offering of the institution to fill in the gap that transpired in the study.

Keywords: employability, trends, challenges and opportunities, competitiveness

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1. Introduction

Competitiveness in the global market has become a pathway for students to attend university and use it as an investment for future employment. Scholars have studied the correlation between educational attainment and job employment from various perspectives and facets, concentrating on its characteristics and strategies (Duncan & Hoffman, 1981). The current economic situation and structure reveal an uneven distribution of employment opportunities among fresh graduates. Highly skilled individuals are concentrated among those who were able to attain quality education, while those who are marginalized and unskilled are left out. This resulted in a high number of unemployed graduates who are struggling to acquire a job in the labor market even after securing a degree (Tayco, Supat, & Estrope, 2022). This highlights the importance of achieving a higher education because it can contribute to a wide range of employment opportunities, resulting in a better placement of an individual in society (Cao, 2020). On the other hand, there is an increasing perception that traditional university degrees are becoming less relevant in work environments that are undergoing rapid change (Burke, 2016; Singhal, 2017). According to data from the Philippine Statistics Authority (2024), the country's employment rate rose from 95.7% to 96.9% in the same period of the previous year. Moreover, the majority of workers who entered the workforce came from diverse fields and sectors: construction, agriculture, forestry, and food service activities. Despite the impressive statistics in the aforementioned data, fresh graduates struggle to find employment. Abanilla (2023) of RepublicAsia discusses one main reason for the massive impact of the COVID-19 pandemic on the employability of fresh graduates in the Philippines. The global crisis forced companies and the workforce to shut down and limit hiring, thereby tightening opportunities. Moreover, it was also discovered that students were fundamentally lacking in the skills and proficiencies necessary for employment due to the abrupt transition to digital learning.

A national tracer study in the Philippines by Tutor, Orbeta, and Miraflor (2019) of the Commission on Higher Education revealed a correlation between graduates' choice of undergraduate degree and their future career expectations in terms of earnings and professional advancement. Graduates perceived nursing and IT-related programs as lacking the previously mentioned data. Over the years, the numbers of graduates in Philippine Higher Education Institutions (HEI) created an overabundance in the employment market, prompting companies to prioritize employability skills, which are often lacking among graduates (Norton, 2017; Curtis & McKenzie, 2001).

The higher education curriculum plays a crucial role in ensuring the employability of its graduates. Universities are increasingly focusing on developing graduates' employment skills. This move highlights colleges' role in preparing graduates for today's workforce demands. (Oliver, 2011, 2015). The university curriculum prepares them for the professional world by providing the skills that are required and relevant to their chosen profession. A high quality of education and a strong partnership for student-internship programs provide greater employment opportunities locally and internationally. Satisfaction with the institution's curriculum ensures a shorter time for job search and alignment with the program. (Saong et al., 2023; Ansell, 2016). Higher education institutions widely acknowledge the concern about employability among their graduates. The more time they take to secure employment, the higher the cost of the opportunities they can access (Caingcoy et al., 2021). Another local study demonstrated a correlation between curriculum responsiveness and employment. The graduates possess competencies that are useful to them. Employers may link these attributes: attitudes, values, and skills to their performance (Tayco et al., 2022). The curriculum must address the demands of the competitive global market to provide adequate skills and fill the gaps in the competencies that are lacking among graduates to compete and respond to the changing labor force. As Shafie and Nayan (2010) highlight, a notable

contradiction continues to exist as numerous graduates remain unaware of the significant disparity between their academic pursuits and the ever-changing labor market, impeding their capacity to acknowledge the tangible use of their abilities. Universities often address these concerns by adapting curriculum, policy, and education to employers' preferences. The implementation of new courses that may provide additional methods and a wide range of opportunities must be introduced to improve their employability skills.

In this complex scenario, the researcher investigated college courses' curriculum responsiveness and employability performance. This exploration serves as a foundational step for curricular innovations, acknowledging the imperative for universities to bridge the gap between education and the ever-evolving demands of the contemporary workforce. The study aims to provide valuable insights that can inform future educational strategies, ensuring graduates possess the skills required to excel in a dynamic and competitive job market.

Objectives of the Study - This research study aimed to analyze trends in graduate employability, uncover challenges, and identify opportunities for curricular reforms within the various degree programs offered by the College of Technology at CBSUA – Calabanga. Specifically, the study sought to address the following objectives: Firstly, it explored the general profile of respondents, including their personal characteristics such as gender, civil status, age, and location of residence, as well as their professional profile, which encompassed educational attainment, professional examinations taken, and any graduate studies pursued after college. Secondly, the study examined the employment patterns of graduates, focusing on aspects such as current employment status, the competencies and work-related values learned during college, present occupation, workplace, and sector. It also investigated the reasons behind job acceptance and changes, the relationship between current jobs and college programs, challenges faced in securing employment, the duration spent in the first job, methods used to find it, time taken to secure the first position, job level, and monthly earnings. Additionally, for those who were unemployed, the study identified reasons for their current status.

Framework of the study

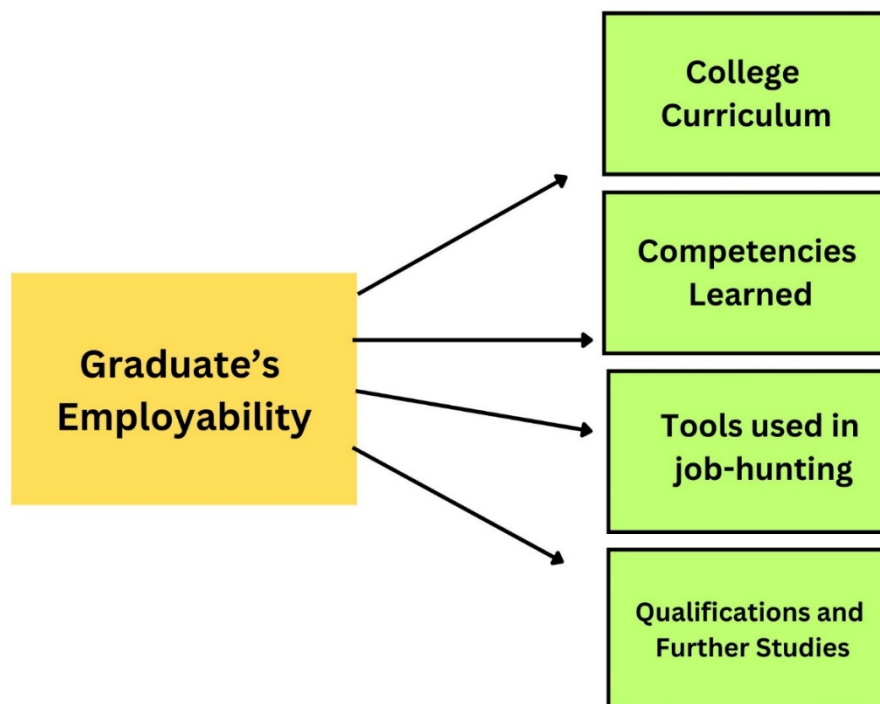


Figure 1. Framework of the Study

The framework of this tracer study incorporates the theory of analytical dimensions of employability, which

was proposed by Mokhtar, et al. (2022). The theory discussed a number of factors that influence employability. This model identified five variables: college curriculum, competencies learned, tools used in job hunting, qualifications, and further studies. In order to secure employability after degree acquisition, these factors must be examined because they will have an impact on the future jobs of BSIT graduates from 2018 to 2022.

2. Methodology

The participants of this study consisted of a total of 320 respondents, who were graduates from the Bachelor of Science in Industrial Technology (BSIT) programs between 2018 and 2022. The respondent group was composed of 40.60% graduates from BSIT Hotel and Restaurant Management, 27.20% from BSIT Automotive Technology, 18.10% from BSIT Electrical Technology, 8.80% from BSIT Electronics Technology, 4.10% from BSIT Refrigeration and Air-conditioning Technology, and 1.30% from BSIT Food and Beverage Technology. These respondents were selected to provide a comprehensive view of the employment outcomes of graduates from these specific courses. The study aimed to trace the employment and industry engagement patterns of these individuals, contributing valuable data for the evaluation of the BSIT program outcomes.

The data-gathering process involved the distribution of semi-structured questionnaires, which were developed through a rigorous item-pooling process. These instruments were designed and validated in collaboration with experts from the university, while ensuring alignment with the standards set by the Commission on Higher Education. The questionnaires underwent several revisions based on expert feedback, and a pilot test was conducted with graduates from other courses to ensure reliability and content validity. The study adhered to Schomburg's (2003) recommendation of an expected response rate of at least 30% for graduate tracer studies, with 43.48% of the total population of 736 graduates responding, providing a robust dataset.

In terms of ethical standards, the research process complied strictly with the Data Privacy Act of 2012. Before data collection commenced, respondents were provided with clear information about the purpose of the study, how their data would be used, and the measures in place to protect their privacy. Informed consent was obtained from all participants, and the confidentiality of their responses was prioritized throughout the study. Personal details, including names, addresses, and phone numbers provided by the university registrar, were securely handled, and access was restricted to the researchers directly involved in the data analysis. To further ensure the protection of respondents' data, digital methods of data collection—such as Facebook Messenger and Google Forms—were employed, with encryption measures in place.

SPSS version 19 was used to organize, process, and analyze the data collected, employing descriptive statistics to compile frequency and percent distribution tables. Ethical guidelines were strictly followed during all phases of data collection, ensuring that the study maintained the highest standards of integrity and respect for the participants' rights and privacy.

3. Results and Discussion

General Profile of the Graduates - There is a clear dominance when it comes to the gender profile, as 67.50% are males and 31.6% are females. The remaining 0.9% falls into the LGBTQIA category. The data reveals a clear concentration: men heavily dominate most BSIT programs, while only a small number of women enroll in these programs. Born, et al. (2018) demonstrate the effect of a male-dominated working environment on the performance of women in the same curriculum. Women face challenges due to gender bias, including gender stereotypes and other factors that may affect their performance and confidence level. Sira, et al. (2022) present a paper on Gendered Curricula, revealing that while women enroll in the College of Industrial Technology programs, there is a noticeable predominance of men in their technology curriculum.

The percentage of respondents by age, shows that majority of the graduates fall between 22 to 25 years old category with 69.70% and the remaining 30.30% belongs to the 26 and above category This finding suggests diversity in the sample, capturing individuals who may have pursued further education or entered the workforce

later than their younger counterparts. The distribution across these two age brackets may indicate distinct life stages, with the 22-25 group likely comprising recent graduates or early-career professionals, while the 26 and above range may include those with a few more years of experience.

On the other hand, the study showed no data from the age bracket of 18–22 years old, showing that graduates are condensed into a certain age group. This may be indicative of a specific trend or characteristic within the surveyed population, such as a preference for pursuing further education at a younger age or a career path that tends to attract younger individuals. It could also be influenced by the nature of the study or the specific demographic targeted.

Table 1*Distribution of Respondents' Profile*

Profile Variables	2018		2019		2020		2021		2022		Total	%
	N	%	N	%	N	%	N	%	N	%		
Gender												
Male	48	82.8	59	73.8	43	89.6	32	86.5	34	35.1	216	67.5
Female	10	17.2	21	26.3	5	10.4	5	13.5	60	61.9	101	31.6
LGBTQIA+	0	0.0	0	0.0	0	0.0	0	0.0	3	3.1	3	0.9
Total	58	100.0	80	100.0	48	100.0	37	100.0	97	100.0	320	100.0
Age												
18 years old to 21 years old	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
22 years old to 25 years old	1	1.7	65	81.3	42	87.5	33	89.2	82	84.5	223	69.7
26 and above	57	98.3	15	18.8	6	12.5	4	10.8	15	15.5	97	30.3
Total	58	100.0	80	100.0	48	100.0	37	100.0	97	100.0	320	100.0
Civil Status												
Single	50	86.2	77	96.3	44	91.7	36	97.3	95	97.9	302	94.4
Married	7	12.1	3	3.8	4	8.3	1	2.7	0	0.0	15	4.7
Separated/Divorced	1	1.7	0	0.0	0	0.0	0	0.0	1	1.0	2	0.6
Single Parent	0	0.0	0	0.0	0	0.0	0	0.0	1	1.0	1	0.3
Total	58	100.0	80	100.0	48	100.0	37	100.0	97	100.0	320	100.0

Several related studies support these observations. Research on educational and career trajectories often highlights the commonality of individuals pursuing higher education and entering the workforce in their early to mid-20s. Studies on professional development may also indicate that career paths tend to solidify within a certain age range. For instance, research by Purcell et al. (2007) reinforces earlier research indicating that older graduates, particularly those exceeding 30 years old, confront difficulties in accessing suitable career paths despite their educational background. In the context of civil status among the surveyed graduates, the data reveals a distinct pattern where a substantial 94.40% of the individuals identify as single, indicating a prevalent trend within this demographic. Conversely, a smaller yet noteworthy 4.70% report being married, providing a glimpse into the diversity of relationship statuses within the surveyed group. A noteworthy 0.60% and 0.30% classified themselves as divorced/widowed and single parent respectively. The dominance of single individuals among BSIT graduates prompts an insightful exploration into the potential factors influencing this trend. One plausible interpretation is that economic considerations and the influence of social networks might play pivotal roles in the decision of a significant majority to remain unmarried. This insight suggests that, for a substantial

portion of BSIT graduates, the pursuit of career opportunities and the establishment of professional networks could take precedence over considerations related to marital status. This trend underscores a possible prioritization of professional and career development. among the majority of BSIT graduates, with the decision to remain single potentially driven by a desire to focus on personal and professional growth.

Table 2*Distribution of Respondents' Residences*

City / Municipality	2018		2019		2020		2021		2022		Total	%
	N	%	N	%	N	%	N	%	N	%		
Naga City	1	1.7	0	0.0	2	4.3	0	0.0	1	1.0	4	1.3
Canaman	0	0.0	0	0.0	0	0.0	0	0.0	1	1.0	1	0.3
Magarao	4	6.9	6	7.5	12	26.1	6	15.8	16	16.3	44	13.8
Bombon	0	0.0	0	0.0	1	2.2	1	2.6	1	1.0	3	0.9
Calabanga	44	75.9	64	80.0	17	37.0	27	71.1	63	64.3	215	67.2
Tinambac	5	8.6	10	12.5	13	28.3	1	2.6	11	11.2	40	12.5
Siruma	0	0.0	0	0.0	0	0.0	0	0.0	2	2.0	2	0.6
Minalabac	0	0.0	0	0.0	1	2.2	0	0.0	1	1.0	2	0.6
Pili	0	0.0	0	0.0	0	0.0	3	7.9	0	0.0	3	0.9
Outside Bicol Region	4	6.9	0	0.0	0	0.0	0	0.0	2	2.0	6	1.9
Total	58.0	100.0	80.0	100.0	46.0	100.0	38.0	100.0	98.0	100.0	320.0	100.0

Table 2 shows the graduates' overall residence profiles. It is clear that half of the collected responses reside in Calabanga, Camarines Sur, where the campus is located (67.20%). According to the data, neighboring towns such as Tinambac and Magarao also appeared, with 13.80% and 12.50% residing in this area, respectively. The graduates from 2018–2022 clearly reside in nearby areas, as evidenced by their dominance in this category. The data also revealed a small population of graduates living outside the Bicol Region, accounting for a noteworthy 1.90%, or 6 graduates, of the total population.

Table 3*Distribution of Respondents' Completed Course*

COLLEGE COURSE	2018		2019		2020		2021		2022		Total	%
	N	%	N	%	N	%	N	%	N	%		
BSIT Automotive Technology	23	39.7	5	6.3	35	72.9	19	51.4	5	5.2	87	27.2
BSIT Electrical Technology	2	3.4	25	31.3	6	12.5	10	27.0	15	15.5	58	18.1
BSIT Electronics Technology	5	8.6	17	21.3	0	0.0	0	0.0	6	6.2	28	8.8
BSIT Refrigeration/ Air-conditioning Technology	5	8.6	7	8.8	0	0.0	0	0.0	1	1.0	13	4.1
BSIT Hotel and Restaurant Management	22	37.9	23	28.8	7	14.6	8	21.6	70	72.2	130	40.6
BSIT Food and Beverage Technology	1	1.7	3	3.8	0	0.0	0	0.0	0	0.0	4	1.3
Total	58	100.0	80	100.0	48	100.0	37	100.0	97	100.0	320	100.0

Looking at Table 3, distribution of employability by course, it is evident that Automotive Technology and Hotel and Restaurant Management (HRM) courses under BSIT dominated the population of the tracer study with 40.60% and 27.2%, respectively. On the other hand, Electrical Technology (18.10%), Electronics Technology

(8.80%), Refrigeration and Air-conditioning Technology (RAC) (4.10%) and Food and Beverage Technology (1.30%) summed up the data in this category.

Table 4

Distribution of Professional Examination Take

Professional Examination Taken	2018		2019		2020		2021		2022		Total	%
	N	%	N	%	N	%	N	%	N	%		
Licensure Examination for Teachers (LPT)	4	6.9	0	0.0	0	0.0	0	0.0	1	1.0	5	1.6
Civil Service Examination	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Total	4	6.9	0	0.0	0	0.0	0	0.0	1	1.0	5	1.6

Table 5

Distribution of Graduate Studies Attended

Graduate Studies Attended	2018		2019		2020		2021		2022		Total	%
	N	%	N	%	N	%	N	%	N	%		
Master of Hospitality Management	1.0	1.72	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	1.0	0.31
Masters in Educational Management	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.03	1.0	0.31
Total	1.0	1.72	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.03	2.0	0.63

Tables 4 and 5 presents the Distribution of Professional Examination Take and graduate studies attended. The tracer study, which focused on the graduate's professional exploration after obtaining a bachelor's degree, tried to identify professional examinations taken and graduate studies attended by BSIT graduates in the years 2018–2022. Most graduates, among the total population who participated, did not prioritize securing a license and went straight to employment. The same goes for the number of graduates who attended graduate studies. Only 1.60%, or 5 graduates, took the Licensure Examination for Teachers (LET), and none took the Civil Service Examination, which is critical to the type of sector they land in after graduation. Only 0.63% of the population, or 2 graduates, pursued graduate studies. Dayaday (2018) carried out a study to identify potential factors influencing students' performance and decision-making in licensure exams. The findings indicated that teaching strategies, curriculum, and instructional materials could influence graduates' performance in these examinations. Dewey's (1902) curriculum theory, which emphasizes the importance of one's curriculum and its correlation to a student's success after their studies, anchors this study.

Graduate's Employment Status

Table 6

Distribution of Respondents' Employability

Employment Status	2018		2019		2020		2021		2022		Total	%
	N	%	N	%	N	%	N	%	N	%		
Employed	58	100.0	79	98.8	29	60.4	34	91.9	84	86.6	284	88.8
Unemployed	0	0.0	1	1.3	19	39.6	3	8.1	13	13.4	36	11.3
Total	58	100.0	80	100.0	48	100.0	37	100.0	97	100.0	320	100.0

Table 7
Distribution of Job Acceptance after College

First Job?	2018		2019		2020		2021		2022		Total	%
	N	%	N	%	N	%	N	%	N	%		
Yes	22	37.9	25	31.6	13	44.8	16	47.1	70	83.3	146	51.4
No	36	62.1	54	68.4	16	55.2	18	52.9	14	16.7	138	48.6
Total	58	100.0	79	100.0	29	100.0	34	100.0	84	100.0	284	100.0

Tables 6 and 7 presents the employability percentage and distribution of job acceptance after college. The data demonstrates that a significant proportion of the respondents have found jobs after graduating from their respective BSIT degrees. A great focus on numbers found that 88.80% of graduates were successful in securing their first job following graduation. On the other hand, 11.30% of graduates remain on the hunt for employment. The fact that graduates have access to a wide variety of career options may account for these findings, making it easier for them to locate employment. A higher employment rate among graduates may be due to increased competition in the job market, emphasizing an overall positive employment status (Wang and Chang, 2019). Meanwhile, table 7 also emphasizes that for 51.4% of the graduates, it is their first employment after degree acquisition while the remaining 48.6% had a previous job prior to it. The culture of working while studying is widely studied across culture, balancing both at the same time requires optimal focus and time. According to Abenoja et al. (2019) financial support and self-development motivate students to do both work and study. It also highlights the pros and cons of working while learning and resiliency in overcoming problems.

Table 8
Distribution of Reasons for Accepting in the Job

Reasons for Accepting in the Job	2018		2019		2020		2021		2022		Total	%
	N	%	N	%	N	%	N	%	N	%		
Salaries and benefits	12	54.5	25	100.0	3	23.1	13	81.3	70	100.0	123.0	84.2
Career Challenge	11	50.0	25	100.0	10	76.9	12	75.0	68	97.1	126.0	86.3
Related to special skills	10	45.5	24	96.0	12	92.3	12	75.0	4	5.7	62.0	42.5
Related to course or program of study	2	9.1	0	0.0	0	0.0	0	0.0	0	0.0	2.0	1.4
Proximity to residence	11	50.0	0	0.0	0	0.0	1	6.3	9	12.9	21.0	14.4
Peer Influence	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0.0	0.0
Family Influence	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0.0	0.0
No other employment opportunities	4	18.2	1	4.0	0	0.0	1	6.3	1	1.4	7.0	4.8

Graduates who responded “yes” to Table 7 are the data analyzed in this category

Each graduate's employability varies, and a variety of factors may have contributed to their hiring for the position. Despite their academic qualifications, they struggle to secure a job, making it challenging for them to find a career path that aligns with their skills. This encompasses factors such as lower wages, job role dissatisfaction, and transitional challenges that can significantly impact their employment. The gathered data revealed that BSIT graduates primarily accepted job offers due to career challenges, salaries, and benefits, accounting for 86.30% and 84.20%, respectively. Liu's (2010) study indicates that BSIT graduates accept job offers based on their personal preferences. The study revealed that job seekers' inclination to decline employment offers is influenced by the image and reputation of the organization. On the other hand, the findings also revealed reasons related to special skills (42.50%), proximity to residence (14.40%), and lack of other employment opportunities (4.80%).

Table 9*Distribution of Reasons for Changing Job*

Reasons for Changing Job	2018		2019		2020		2021		2022		Total	%
	N	%	N	%	N	%	N	%	N	%		
Salaries and benefits	32	88.9	54	100.0	16	100.0	15	83.3	7	50.0	124	89.9
Career Challenge	29	80.6	12	22.2	1	6.3	14	77.8	5	35.7	61	44.2
Related to special skills	29	80.6	36	66.7	14	87.5	12	66.7	3	21.4	94	68.1
Proximity to residence	29	80.6	30	55.6	4	25.0	2	11.1	5	35.7	70	50.7
Related to course/program	5	13.9	0	0.0	0	0.0	1	5.6	0	0.0	6	4.3
No other employment opportunities	11	30.6	18	33.3	0	0.0	0	0.0	0	0.0	29	21.0
Others	5	13.9	0	0.0	1	6.3	0	0.0	0	0.0	6	4.3

Graduates who responded with “no” to Table 7 are the data analyzed in this category.

Graduates often change careers due to different intentions after securing their first job. When considering the workplace environment, security, and workload, the complexity of influencing factors and extraneous variables may come into play (Adebayo & Ogunsina, 2011). According to these findings, salaries and benefits are the primary motivators for BSIT graduates to change jobs, as indicated by 89.90% of the responses collected. The table also showed that BSIT graduates chose to change their current employment due to jobs that align with their special skills and those that are closer to their residence, with 68.10% and 50.70% of respondents citing these factors, respectively. Deluna and Berdos (2015) found that the probability of job switching appears to be higher for individuals working in the private sector; this finding could potentially validate the data indicating a higher employment rate among BSIT graduates in this sector. The study highlighted low salaries, poor working conditions, and limited opportunities for career growth as additional reasons for career change. Saragih, et al. (2021) claimed that to prevent workers from wanting to leave their jobs, it is important to concentrate on the factors that impact them and pay particular attention to the relevant indications.

Table 10*Distribution of First Job related to Course*

First Job related to the course?	2018		2019		2020		2021		2022		Total	%
	N	%	N	%	N	%	N	%	N	%		
Yes	22	37.9	75	94.9	28	96.6	16	47.1	70	83.3	211	74.3
No	36	62.1	4	5.1	1	3.4	18	52.9	14	16.7	73	25.7
Total	58	100.0	79	100.0	29	100.0	34	100.0	84	100.0	284	100.0

Table 10 presents the findings on graduates' employment and how it relates to their college degree or program. Evidently, 74.30% of the graduates' first employment aligns with their college degree, utilizing all the competencies and skills relevant to their job. On the other hand, 25.70% of BSIT graduates landed jobs where they were not able to utilize what they learned in college. Guo (2022) discusses this phenomenon, revealing that most college students opt for a job that provides a steady income, rather than pursuing a degree in their chosen field. The greater impact of salary and benefits is what motivates them to acquire employment, even if the job does not necessarily involve all of the knowledge they gained.

Table 11*Distribution of Respondents Competencies acquired in College*

Competencies Acquired	2018		2019		2020		2021		2022		Total	%
	N	%	N	%	N	%	N	%	N	%		
Communication	47	81.0	71	89.9	25	86.2	16	47.1	51	60.7	210	73.9
Entrepreneurial	14	24.1	26	32.9	22	75.9	11	32.4	33	39.3	106	37.3
Problem-Solving	45	77.6	57	72.2	28	96.6	30	88.2	68	81.0	228	80.3
Human Relations	37	63.8	63	79.7	6	20.7	5	14.7	22	26.2	133	46.8
Information Technology Skills	50	86.2	54	68.4	28	96.6	28	82.4	66	78.6	226	79.6
Critical Thinking	35	60.3	52	65.8	9	31.0	19	55.9	45	53.6	160	56.3

Skills' usefulness and relevance to job placement are significant predictors of future employability and career success. The labor market needs to prioritize sustainable development goals, given the increasing number of unemployed graduates (Alam et al., 2022). This study's distribution of usefulness and relevance measures the competence and expertise students acquire in order to secure employment. According to the graduate's response, problem solving, information technology skills, and communication topped the rankings with 80.30%, 79.60%, and 73.90% in terms of skill and competence. Experts predict that soft skills and technological skills, demonstrated by BSIT graduates, will dominate future skill sets. 46.80% of the data supports the usefulness of human relationship skills. Conversely, the graduates exhibit the least proficiency in critical thinking and entrepreneurial skills. These findings suggest crucial recommendations for the institution to enhance the skill set of future graduates. Abas and Imam (2016) suggested that focusing on enhancing competence and proficiency in employability skills by employers, employees, higher academic institutions, labor agencies, and policymakers might potentially resolve issues related to job performance.

Table 12*Distribution of Work-related Values Acquired in College*

Work-related Values Acquired in College	2018		2019		2020		2021		2022		Total	%
	N	%	N	%	N	%	N	%	N	%		
Love of God	17	29.3	36	45.6	6	20.7	4	11.8	19	22.6	82	28.9
Self-reliant	31	53.4	56	70.9	5	17.2	4	11.8	20	23.8	116	40.8
Honesty and love for truth	37	63.8	62	78.5	7	24.1	5	14.7	23	27.4	134	47.2
Punctuality	42	72.4	55	69.6	29	100.0	30	88.2	19	22.6	175	61.6
Obedience to superior	37	63.8	57	72.2	5	17.2	3	8.8	20	23.8	122	43.0
Perseverance and hard work	37	63.8	65	82.3	23	79.3	13	38.2	23	27.4	161	56.7
Creativity and Innovativeness	27	46.6	38	48.1	7	24.1	3	8.8	19	22.6	94	33.1
Courage	35	60.3	58	73.4	6	20.7	3	8.8	20	23.8	122	43.0
Professional Integrity	40	69.0	61	77.2	7	24.1	2	5.9	21	25.0	131	46.1
Love for co-workers and others	36	62.1	57	72.2	24	82.8	12	35.3	20	23.8	149	52.5
Unity	32	55.2	37	46.8	9	31.0	21	61.8	18	21.4	117	41.2
Fairness and Justice	36	62.1	50	63.3	28	96.6	28	82.4	16	19.0	158	55.6

Leadership	34	58.6	59	74.7	6	20.7	4	11.8	2	2.4	105	37.0
Tolerance	16	27.6	21	26.6	5	17.2	2	5.9	10	11.9	54	19.0
Efficiency	17	29.3	24	30.4	5	17.2	2	5.9	12	14.3	60	21.1
Supportiveness	28	48.3	54	68.4	6	20.7	4	11.8	20	23.8	112	39.4
Self-discipline	39	67.2	68	86.1	4	13.8	5	14.7	26	31.0	142	50.0
Nationalism	14	24.1	23	29.1	5	17.2	2	5.9	11	13.1	55	19.4
Open-mindedness	43	74.1	63	79.7	9	31.0	22	64.7	23	27.4	160	56.3

Table 12 shows the work-related values acquired in college by the BSIT graduates. The research's findings exhibit a number of top work-related values, including punctuality (61.60%), perseverance and hard work (56.70%), open-mindedness (56.30%), fairness and justice (55.60%), and love for co-workers and unity. Their personal values and other work-related factors resulted in a strong dedication towards development goals. Meanwhile, nationalism, tolerance, efficiency, and love of God seem to be the least acquired values, as shown in the data.

Table 13*Distribution of Present Occupation*

Present Occupation	2018		2019		2020		2021		2022		Total	%
	N	%	N	%	N	%	N	%	N	%		
Technician/Mechanic	20	34.5	51	64.6	20	69.0	25	73.5	12	14.3	128	45.1
Front House	17	29.3	18	22.8	3	10.3	2	5.9	49	58.3	89	31.3
Back of the House Sales/Marketing	11	19.0	5	6.3	2	6.9	2	5.9	17	20.2	37	13.0
Managerial Position	1	1.7	1	1.3	0	0.0	2	5.9	1	1.2	5	1.8
Delivery Rider	2	3.4	1	1.3	2	6.9	2	5.9	1	1.2	8	2.8
Businessmen/women	1	1.7	2	2.5	0	0.0	0	0.0	1	1.2	4	1.4
Instructor/Teacher	6	10.3	1	1.3	0	0.0	0	0.0	3	3.6	10	3.5
Government Employee	0	0.0	0	0.0	2	6.9	1	2.9	0	0.0	3	1.1
Total	58	100.0	79	100.0	29	100.0	34	100.0	84	100.0	284	100.0

Graduates have the opportunity to seek employment in the industry in which they feel the most comfortable and where they can utilize and hone their abilities. Table 13 displays the current occupations of the employed BSIT graduates. According to the gathered data, it is clear that graduates acquired job roles as mechanics or technicians with 45.10% of the sampled population. Graduates of Hotel and Restaurant Management and Food and Beverage Technology seem to have diverse job opportunities where they are fit to work in front-house (31.3%) and back-house jobs (13.0%). On the other hand, BSIT graduates seem to have a clear and defined path in the technician and mechanic job roles. Some graduates also found employment as educators, self-employed individuals, and government employees, with a visibly low number, as shown by the data above.

Tables 14-15 provide valuable information on the graduate's employment sector and status in their current occupation. The data presented above sheds light on how BSIT graduates are placed in various jobs. The data reveals a clear dominance, with 93.0% of the graduates securing employment in the private sector. Government employment accounts for only 7.0% of the private sector's workforce. This highlights the strong demand for their specialized skills and knowledge in various private industries. Industries are constantly seeking to invest in personal skills for the overall development of their businesses, and it seems that the private sector recognizes the

value of hiring BSIT graduates to meet their specific technological needs. The integration of high-tech skills into formal education can greatly benefit the private sector. While it may appear that they are reaping the benefits of private institutions, these findings raise concerns about the graduates' capacity to secure employment opportunities in government agencies. As shown in tables 4 and 5, the educational attainment of the graduates revealed that a small percentage of the respondents did not pursue additional studies or take licensure examinations, which are crucial for securing a government job. These findings could potentially shed light on why the majority find themselves choosing to work for private agencies. Employment status shows a clear dominance of graduates with a regular or permanent position (60.90%), while 27.10% have contractual status. The programs studied under BSIT generally offer a wide variety of job roles.

Table 14
Distribution of Employment Sector

Employment Sector	2018		2019		2020		2021		2022		Total	%
	N	%	N	%	N	%	N	%	N	%		
Public	5	8.6	6	7.6	3	10.3	5	14.7	1	1.2	20	7.0
Private	53	91.4	73	92.4	26	89.7	29	85.3	83	98.8	264	93.0
Total	58	100.0	79	100.0	29	100.0	34	100.0	84	100.0	284	100.0

Table 15
Distribution of Respondent's Employment Status

Employment Status	2018		2019		2020		2021		2022		Total	%
	N	%	N	%	N	%	N	%	N	%		
Regular. Permanent	37	63.8	37	46.8	23	79.3	29	85.3	47	56.0	173	60.9
Temporary	0	0.0	2	2.5	0	0.0	0	0.0	2	2.4	4	1.4
Casual	21	36.2	4	5.1	0	0.0	0	0.0	2	2.4	27	9.5
Contractual	0	0.0	34	43.0	6	20.7	5	14.7	32	38.1	77	27.1
Self-employed	0	0.0	2	2.5	0	0.0	0	0.0	1	1.2	3	1.1
Total	58	100.0	79	100.0	29	100.0	34	100.0	84	100.0	284	100.0

Table 16
Distribution of Time Interval before landing First Job

Time Interval before landing First Job	2018		2019		2020		2021		2022		Total	%
	N	%	N	%	N	%	N	%	N	%		
Less than a month	4	6.9	1	1.3	0	0.0	14	41.2	19	22.6	38	13.4
1-6 months	26	44.8	39	49.4	19	65.5	15	44.1	38	45.2	137	48.2
7-11 months	2	3.4	22	27.8	4	13.8	3	8.8	12	14.3	43	15.1
1 year to less than 2 years	14	24.1	16	20.3	3	10.3	2	5.9	8	9.5	43	15.1
2 years to less than 3 years	11	19.0	1	1.3	3	10.3	0	0.0	6	7.1	21	7.4
3 years to less than 4 years	1	1.7	0	0.0	0	0.0	0	0.0	1	1.2	2	0.7
Total	58	100.0	79	100.0	29	100.0	34	100.0	84	100.0	284	100.0

In the context of the time lag between graduation and securing their first employment, Table 16 provides notable data that illustrates the employability of BSIT graduates after obtaining their bachelor's degree. A large number of graduates secured their first employment within 1-6 months, consisting of 48.20% of the acquired data. Graduates with a time lag of 7–11 months and 1 year to less than 2 years follow, accounting for 15.10% of the data. It usually takes weeks to months, depending on the industry and degree of competition in the job market. Various factors, which vary from individual to individual, can contribute to some graduates' inability to secure a job after graduation. Factors that might delay job search success include lacking necessary skills, introversion, or being in a declining field.

Table 17

Distribution of Time Span of Staying on First Job

Time Span of Stay on First Job	2018		2019		2020		2021		2022		Total	%
	N	%	N	%	N	%	N	%	N	%		
Less than a month	0	0.0	0	0.0	0	0.0	1	2.9	0	0.0	1	0.4
1-6 months	11	19.0	34	43.0	2	6.9	23	67.6	32	38.1	102	35.9
7-11 months	10	17.2	19	24.1	15	51.7	6	17.6	26	31.0	76	26.8
1 year to less than 2 years	21	36.2	12	15.2	9	31.0	4	11.8	7	8.3	53	18.7
2 years to less than 3 years	0	0.0	13	16.5	3	10.3	0	0.0	16	19.0	32	11.3
3 years to less than 4 years	16	27.6	1	1.3	0	0.0	0	0.0	3	3.6	20	7.0
Total	58	100.0	79	100.0	29	100.0	34	100.0	84	100.0	284	100.0

Table 17 shows the distribution of the time span that graduates stayed in their first employment. The research findings reveal that they did not stay in their first job for more than a year, with 1-6 months accounting for the highest percentage at 35.90% and 7–11 months contributing to 26.80%. Adebayo and Ogunsina (2011) argued that there are reasons why workers leave their jobs and seek alternative employment, considering the workplace environment, work security, and workload. In this category, a small number of graduates stayed for 1 year to less than 2 years (18.70%) and 2 years to less than 3 years (11.30%).

Table 18

Distribution of Job Level / Position

Job Level / Position	2018		2019		2020		2021		2022		Total	%
	N	%	N	%	N	%	N	%	N	%		
First Job	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Current of present job	0	0.0	0	0.0	0	0.0	0	0.0	1	1.2	1	0.4
Rank or clerical	4	6.9	1	1.3	1	3.4	0	0.0	6	7.1	12	4.2
Professional, Technical, Supervisory	54	93.1	76	96.2	28	96.6	34	100.0	76	90.5	268	94.4
Managerial or executive	0	0.0	0	0.0	0	0.0	0	0.0	1	1.2	1	0.4
Self employed	0	0.0	2	2.5	0	0.0	0	0.0	0	0.0	2	0.7
Total	58	100.0	79	100.0	29	100.0	34	100.0	84	100.0	284	100.0

Table 19
Distribution of Monthly Income

Monthly Income	2018		2019		2020		2021		2022		Total	%
	N	%	N	%	N	%	N	%	N	%		
Below P5,000	0	0.0	0	0.0	0	0.0	1	2.9	1	1.2	2	0.7
P5,000 lo less than P10,000	0	0.0	2	2.5	3	10.3	3	8.8	13	15.5	21	7.4
P10,000 to less than P15,000	16	27.6	12	15.2	2	6.9	9	26.5	34	40.5	73	25.7
P15,000 to less than P20,000	34	58.6	65	82.3	24	82.8	18	52.9	30	35.7	171	60.2
P20,000 to less than P25,000	2	3.4	0	0.0	0	0.0	2	5.9	2	2.4	6	2.1
P25,000 and above	6	10.3	0	0.0	0	0.0	1	2.9	4	4.8	11	3.9
Total	58	100	79	100	29	100	34	100	84	100	284	100

The distribution of initial gross income is illustrated in this table showing graduates' initial earnings after the acquisition of their degrees. It was found out from the data that a vast majority of BSIT graduates earned ₱15,000 to less than ₱20,000 with 60.20%. As per the Association of Public Land-Grant Universities (2023), the earnings of bachelor's degree holders are 84% higher than those of those with high school diplomas. These findings align with the data: 88.80% of gathered BSIT graduates from 2018–2022 were able to secure their first employment and are degree holders. The aforementioned data clearly dominates other gross income brackets in this study, with others having significantly lower percentages. incomes under ₱10,000 to less than ₱15,000 with 25.70% and ₱5,000 to less than ₱10,000 with 7.40%. Cao (2020) emphasized that an individual's wage impacts the average income in society and may be influenced by various other factors. His analysis of the elements impacting a graduate's wage indicates the need of providing students with a clear trajectory for their academic and career advancement in terms of salary. On the other hand, table 19 provides finding that there is a domination of graduates with Professional, Technical and Supervisory job position with 94.40%.

Table 20
Distribution of Tools Used in Finding the First Job

Tools Used in Finding First Job	2018		2019		2020		2021		2022		Total	%
	N	%	N	%	N	%	N	%	N	%		
Response to Advertisement	10	17.2	23	29.1	8	27.6	3	8.8	22	26.2	66	23.2
Walk-in Applicant	18	31.0	19	24.1	0	0.0	21	61.8	31	36.9	89	31.3
Information from friends	19	32.8	31	39.2	18	62.1	6	17.6	10	11.9	84	29.6
Arranged by school	6	10.3	1	1.3	2	6.9	1	2.9	2	2.4	12	4.2
Family Business	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Job Fair for public employment service office	5	8.6	5	6.3	1	3.4	3	8.8	19	22.6	33	11.6
Total	58	100.0	79	100.0	29	100.0	34	100.0	84	100.0	284	100.0

Table 20 presents the findings from the respondents about the tools they used to secure their first employment. Graduates most commonly use walk-in applicants for their job searches. Baert (2017) concluded that job seekers may face disadvantages due to their socio-demographic profile, which may make them less likely to receive interviews or job offers. These may include factors such as gender, race, age, religion, sexual orientation, and physical appearance. Therefore, studies have shown that social networking plays a crucial role in employment for job seekers, serving as a significant source of opportunities in various cultures and nations, with

rates as high as 83% in the Philippines and the lowest in Finland and Austria (Franzen & Hangartner). The findings in this category corroborate the findings of Franzen and Hangartner, revealing that 29.60% and 23.20%, respectively, rely on information from friends and responses to advertisements as employment tools. Finally, school arrangements and job fairs for public employment services account for a small proportion of employment, at 11.60% and 4.20%, respectively.

Table 21*Distribution of Challenges Encountered in Securing a Job*

Challenges Encountered in Securing a Job	2018		2019		2020		2021		2022		Total %	
	N	%	N	%	N	%	N	%	N	%		
Competition in the Job market	19	32.8	21	26.6	6	20.7	2	5.9	14	16.7	62	21.8
Overqualified for the available position	0	0.0	0	0.0	1	3.4	0	0.0	0	0.0	1	0.4
Lack of experience	29	50.0	34	43.0	17	58.6	19	55.9	14	16.7	113	39.8
Lack of industry knowledge and connections	7	12.1	4	5.1	2	6.9	1	2.9	9	10.7	23	8.1
Difficulty in job hunting because you don't know where to start	0	0.0	1	1.3	0	0.0	1	2.9	12	14.3	14	4.9
Limited amount of time to look for a job	0	0.0	4	5.1	0	0.0	2	5.9	6	7.1	12	4.2
No interview skills	1	1.7	0	0.0	2	6.9	4	11.8	5	6.0	12	4.2
Lack of industry connections	2	3.4	7	8.9	0	0.0	5	14.7	15	17.9	29	10.2
Getting interviews but not offers	0	0.0	8	10.1	1	3.4	0	0.0	9	10.7	18	6.3
Total	58	100	79	100	29	100	34	100	84	100	284	100

In this section, the data represents challenges encountered by the graduates in securing a job. Lack of experience seems to be the biggest challenge they faced, with 39.80% of the respondents choosing this as an option. High competition in the job market and a lack of industry knowledge and connections also emerged as contributing factors, with 21.80% and 10.20%, respectively. According to Oswald-Egg and Renold (2020), graduates with higher education degrees (diplomas) enter the labor market more smoothly. Obtaining an interview but receiving no offers is a challenge for 6.30% of graduates. Difficulty in job hunting was caused by being unaware of when to start (4.90%), and no interview skills also emerged from the findings. Recent studies link high English language skills to job placement. Researchers have conducted studies on the challenges faced by new graduates in their respective career fields (Islam, 2021).

*Graduate's Unemployed Status***Table 22***Distribution of Reasons for Unemployment*

Reasons for Unemployment	2018		2019		2020		2021		2022		Total %	
	N	%	N	%	N	%	N	%	N	%		
Never been employed	0	0.0	0	0.0	0	0.0	0	0.0	1	7.7	1	2.8
Family concern and decide not to find a job	0	0.0	1	100.0	8	42.1	1	33.3	5	38.5	15	41.7
No job opportunity	0	0.0	0	0.0	1	5.3	2	66.7	5	38.5	8	22.2
Did not look for a job	0	0.0	0	0.0	3	15.8	0	0.0	1	7.7	4	11.1
Health-related reasons	0	0.0	0	0.0	7	36.8	0	0.0	1	7.7	8	22.2
Total	0	0.0	1	100.0	19	100.0	3	100.0	13	100.0	36	100.0

Table 22 shows reasons for unemployment among 36 graduates, or 11.30% of the gathered population. Family concerns topped the category with 41.70%. At 22.20%, no other job opportunities or health-related

reasons followed. With regards to the findings, Maitoza (2019) focused on the issues that families experience as a result of unemployment. The study investigated a variety of topics, including financial pressure, mental discomfort, and changes in family dynamics induced by job loss. support systems and coping techniques. The remaining 11.10% and 2.80% belong to graduates who are never employed and didn't seek employment.

4. Conclusion and Recommendations

This tracer study explored different dimensions of graduate profiles, specifically employability, and how they lived up to employers' demands and expectations in the competitive global market. BSIT graduates of CBSUA-Calabanga were able to adapt their skills to various program offerings and opportunities aligned with their program. This paper offers a comprehensive analysis of graduate employability, highlighting the various factors that shaped their career choices. The conclusion is that the majority of graduates were able to secure employment after graduation, backed up by the necessary skills and values honed by the institution. Graduates demonstrate strong problem-solving and communication skills, yet they lack critical thinking and entrepreneurial skills. This suggests that the institution should revise its curriculum, add new courses, and provide additional programs to enhance students' ability to perform efficiently and effectively adapt to the evolving technological and scientific employment environment. Considering that a huge number of graduates secure employment in private institutions, the university must encourage students to acquire eligibility by providing training and seminars to allow them to explore career options in the public sector. The College of Industrial Technology must stick to its core values and goals to intensify its production capabilities. Moreover, conducting a tracer study at least 6 months after graduation would strengthen the validity and reliability of the results through intensive data collection.

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5. References

- Abanilla, I. (2023, July 22). SONA Special Report: How's the job hunting? Employment numbers up, but fresh grads struggle to find work. *RepublicAsia Media, Inc.*
<https://republicasiamedia.com/sona-special-report-hows-the-job-hunting-employment-numbers-up-but-fresh-grads-struggle-to-find-work/>
- Abas M. & Imam O. (June 2016) Graduates' Competence on Employability Skills and Job Performance. *International Journal of Evaluation and Research in Education (IJERE)*
<https://files.eric.ed.gov/fulltext/EJ1108534.pdf>
- Abenoja, R., Accion, N., Aguilar, J., Alcasid, M., Amoguis, A., Buraquit, D., Mama, A., Pacete, J., & Pame, J. (2019). The Experiences of Working While Studying: A Phenomenological Study of Senior High School Students. *Paper Knowledge toward a Media History of Documents*, 1, 204-219.
- Adebayo, S. O., & Ogunsina, S. O. (2011). Influence of Supervisory Behaviour and Job Stress on Job Satisfaction and Turnover Intention of Police Personnel in Ekiti State. *Journal of Management and Strategy*, 2(3), 13–20. <https://doi.org/10.5430/jms.v2n3p13>
- Alam M. J., Ogawa K. & Islam, S.R.B (15, June 2022) Importance of Skills Development for Ensuring Graduates Employability: The Case of Bangladesh *Social Sciences*. 11(8):360.
<https://doi.org/10.3390/socsci11080360>
- Ansell, M. 2016. Snobbery is outdated-universities have to train students for jobs. *The Guardian*.

- Baert S. 2017. Hiring discrimination: an overview of (almost) all correspondence experiments since 2005. Discuss. Pap. 10738, IZA, Inst. Labor Econ., Bonn, Ger. <http://ftp.iza.org/dp10738.pdf>
- Born, A. Ranehill, & E. Sandberg, A. (2018). A man's world? – The impact of a male-dominated environment on female leadership. Working Paper in Economics No. 744. Department of Economics. The University of Gothenburg, School of Business, Economics and Laws. <https://core.ac.uk/download/pdf/185290941.pdf>
- Burke, L. (2016). University degrees 'irrelevant' to big employers. *Careers section, PerthNow, January, 23*.
- Caingcoy, M. E., Ramirez, I. a. L., Gaylo, D. N., Adajar, M. I. W., Lacadag, E. O., & Blanco, G. a. B. (2021). Employment, Employability, and Competencies of the Bachelor of Secondary Education Graduates. *International Journal of Research in Education and Science, 7(3)*, 872–884. <https://doi.org/10.46328/ijres.2328>
- Cao L. (2020) Analysis on Factors That Affect the Salary of Undergraduate. *Advance in Social Science, Education and Humanities Research, volume 466*. Doi: 10.2991/assehr.k.200826.130
- Curtis, D. and McKenzie, P. 2001. Employability skills for Australian industry: Literature review and framework development. Melbourne: *Australian Council for Educational Research*.
- Del Castillo-Arenilo, A., Cena, EM., Fresco, SM., Ramos, MD., & Untalan KB. The Impact of Filipino Work Values in Organizational Commitment of Public School Teachers. *Letran Research Center*. <https://research-manila.letran.edu.ph/article/184>
- Deluna, R. and Berdos, K. (2015) Factors Affecting Length of Job Search and Job Switching in Davao City, Philippines. Munich Personal RePEc Archive. https://mpra.ub.uni-muenchen.de/68802/1/MPRA_paper_68802.pdf
- Dewey, J. (1902). John Dewey's curriculum theory. from <https://bit.ly/2TsCa5o>
- Duncan, G. J., & Hoffman, S. D. (1981). The incidence and wage effects of overeducation. *Economics of Education Review, 1(1)*, 75–86. [https://doi.org/10.1016/0272-7757\(81\)90028-5](https://doi.org/10.1016/0272-7757(81)90028-5)
- Fajaryati, N., Budiyono, Akhyar, M. & Wiranto (2020). The Employability Skills Needed To Face the Demands of Work in the Future: Systematic Literature Reviews. *Open Engineering, 10(1)*, 595-603. <https://doi.org/10.1515/eng-2020-0072>
- Franzen A, Hangartner D. 2006. Social networks and labour market outcomes: the non-monetary benefits of social capital. *Eur. Soc. Rev. 22:353–68*
- Guo, S. (2022). Determine The Correlation between Majors and Wages of College Students. In *Proceedings of the 2022 5th International Conference on Humanities Education and Social Sciences (ICHESS 2022)* (pp. 2943–2949). https://doi.org/10.2991/978-2-494069-89-3_337
- Islam, M. (2021). Challenges in job sectors for fresh graduates in Bangladesh: Focused On Poor English Language Proficiency Department of English and Humanities. space.bracu.ac.bd/xmlui/bitstream/handle/10361/18151/20163024_ENH.pdf
- Liu J. (May 2010) A Study On College Job Applicant's Intention To Refuse Job Offer, *Master Thesis University Missouri*. <https://mospace.umsystem.edu/xmlui/bitstream/handle/10355/8108/research.pdf?sequence=3>
- Maitoza, R. (2019). Family challenges created by unemployment. *Journal of Family Social Work, 1–19*. doi:10.1080/10522158.2018.1558430
- Maricel G. Dayaday, 2018. "Factors affecting the performance in the board examination of electronics engineering Mindanao graduates" *International Journal of Current Research 10, (09)*, 710-73715.
- Mokhtar, S.A.; Arifin, N.A.M.; Rosman, M.R.M.; Abdullah, N.; Fadzil, F.H.; Isa, A.M. (2022) Graduates' Competencies and Employability: A Conceptual Framework. **Proceedings 82**, 54. <https://doi.org/10.3390/proceedings2022082054>
- Norton, A. 2017. Universities and the evolving graduate labour market. Visions for Australian tertiary education, 91-100.
- Oliver, B. (2011). Assuring graduate outcomes. *The Australian Learning and Teaching Council*.
- Oliver, B. 2015. Assuring graduate capabilities: Evidencing levels of achievement for graduate employability. Sydney: Office for Learning and Teaching.
- Oswald-Egg, M. E., & Renold, U. (2021). No experience, no employment: The effect of vocational education and training work experience on labour market outcomes after higher education. *Economics of*

- Education Review, 80, 102065. <https://doi.org/10.1016/j.econedurev.2020.102065>
- Philippine Statistics Authority. (2024) Employment Rate in January 2024 was Estimated at 95.5 Percent. <https://psa.gov.ph/statistics/labor-force-survey/node/1684062498>
- Purcell, S., Neale, B., Todd-Brown, K., Thomas, L., Ferreira, M.A., Bender, D., Maller, J., Sklar, P., De Bakker, P.I., Daly, M.J. and Sham, P.C., 2007. PLINK: a tool set for whole-genome association and population-based linkage analyses. *The American journal of human genetics*, 81(3), pp.559-575.
- Saong, M., Bonifacio, J., & Gili, K. K. R. (2023). The Role of Higher Education Curriculum in the Employability of Health Sciences Graduates. *International Journal of Academe and Industry Research*, 4(3), 82–104. <https://doi.org/10.53378/353009>
- Saragih H., Supriyati Y., & Nikensai SI. (2021). Factors Influencing Intention to Change Employment: The Case of Military Organization. *International Journal of Human Resource Development and Management*. Volume 11, Number 1 (2021). Pp.1-26 https://www.ripublication.com/ijhrdm21/ijhrdmv11n1_01.pdf
- Schomburg H. (2003). *Handbook for Graduate Tracer Studies*. Kassel: Centre for Research on Higher Education and Work, University of Kassel
- Shafie, L. & Nayan S. (2010). Employability Awareness among Malaysian Graduates. *International Journal of Business and Management*. 5(8)
- Singhal, P. 2017. PwC to end university degree employment requirements. *The Sydney Morning Herald*. Retrieved from <http://www.smh.com.au/national/education/pwc-to-end-university-degreeemployment-requirement-20170424-gvrb7c.html>
- Sira, K. S., Trance, N. J. C., Daitao, S. A., Daitao, E. A., Celda, R. L., & Minerva, P. N. (2022, December 15). *College of Industrial Technology Towards Gendered Curricula*. <https://www.jclmm.com/index.php/journal/article/view/202>
- Tayco, R. O., Supat, P. S., & Estrope, C. P. (2022). Employability of a State University Graduates in the Philippines. *ResearchGate*. https://www.researchgate.net/publication/363842912_Employability_of_a_State_University_Graduates_in_the_Philippines
- Tutor, M. V., Orbeta, A. C., Miraflor, J. M. B., & Mathew, B. (2021). *The 4th Philippine Graduate Tracer Study: Examining higher education as a pathway to employment, citizenship, and life satisfaction from the learner's perspective*. Philippine Institute for Development Studies.