Tracer Study of BS Information Technology of Isabela State Universitycabagan Campus

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Abstract

This study was conducted to trace the whereabouts of the Bachelor of Science in Information Technology graduates in the Isabela State University-Cabagan Campus from 2014-2018. The study made use of the descriptive method of research involving the total population of the graduates as respondents. Weighted mean, percentage, ranking, and frequency were used to analyze the data. The findings revealed that the BSIT graduates are highly employable with regular status and have jobs relevant to their course. The respondents obtained their first job in below 1 year while the top reasons for the delay of their employment are the issuance of other needed documents and no immediate vacancy. In finding a job, educational qualifications and recommendations from relatives and friends are the top factors that facilitate them getting their first or present job. Communication skills, information technology skills, and human relations or interpersonal skills are the skills and competencies that are found very useful in getting their first or present job. Likewise, the respondents have an excellent assessment on the faculty, methods of instruction, research services, and curriculum while they rated very well on the facilities, student's services, extension, and general administration.

I. Introduction

In the age of globalization, integrating technology into education is one of the key goals of every institution. Reference [3] pointed out that technology is indeed important that people in any organization, establishment, and academe especially the administrators to be aware of the functions and benefits of integrating information technology.

In today's digital age, the demand for information technology education has been on the rise. The BSIT particularly is one of the college courses that are in demand today and in the next years. In the Philippines, this continues to grow, as more and more IT-enabled industries are rising. Indeed, there is a high demand for but very low supply to IT professionals in the country and the world. In the recent survey conducted by reference [8], the BSIT garnered as the top four in the official list of in-demand college courses in the world and the Philippines. It is also one of the most in-demand professions across the world with an average income of $69,583 (US) [6] and ₱52,331.00 in the Philippines [7].

In response to the demands, the Isabela State University Cabagan Campus was prompted to offer the BSIT. The Bachelor of Science in Information Technology (BSIT) was first offered in the year 2001 under the Isabela State University and the GMAP a private company from Manila. However, with the increasing number of enrollees on the campus and demands from the industry, the university initiated the institutionalization of the BSIT program. It was in 2003 when Isabela State University formally owned the programs under Board of Regents Resolution No. 62, S. 2003 allocating budget for the additional equipment and hiring the needed manpower resources.

The BSIT program has produced 588 graduates from 2004 to 2015. These graduates have experienced various work environments which could be processed into information that could be used by the BSIT program

to cope with the demands of the industry [5]. The employability of these graduates is one of the measures of Higher Education Institutions to ensure that the quality of education they provided is evitable to the needs of the industry[2].

It is for the above purpose that a tracer study was conducted to determine the employment status of BSIT graduates of ISU Cabagan Campus from 2014- 2018 and assess the effectiveness and the relevance of BSIT curricula, knowledge, skills, and work values; to provide rich experience about the whereabouts of graduates, which might help to broaden perspectives among administrators, faculty, and students. Also, this study was conducted not only for accreditation purposes but to enable the administrator and faculty to make informed and evidence-based decisions about improvements or enhancement of the curricula of the BSIT program to make it more responsive and relevant to the needs and demands of the industry.

This study aims to trace the whereabouts of the graduates of the Bachelor of Information Technology in the last five years (2014-2018) from their school of origin to their place of employment. Specifically, the study sought to find the answer to the following research questions:

1) What are the personal details of the graduates in terms of sex, civil status, educational attainment and eligibilities

2) What is the job placement profile of the graduates?

3) What are the reasons for the graduate's delay of employment and factors that facilitated in getting the First/Present job?

4) What skills and competencies do the graduates learned in college which found very useful?

5) How relevant are the skills or the college degree to the graduates' present job?

6) What are the assessment of graduates on the quality of BSIT education in terms of curriculum, methods of instruction, faculty, facilities, student services, research services extension services, and general administration?

II. METHODOLOGY

Research Design

This study made use of descriptive statistics. Thus, the researcher used a survey questionnaire to gather data from the BSIT graduates.

Respondents of the Study

The respondents of the study were the 364 graduates of the BSIT program of Isabela State University at Cabagan Campus (ISUC). This study utilized the total population of the graduates broken down as follows:

Year	No. of Graduates
2018	76
2017	94
2016	67
2015	79
2014	48

Out of 364 questionnaires administered, there were 238 graduates or 65. 4% returned answered questionnaires representing the 2014 to 2018 graduates.

Data Gathering Procedure

The survey instrument used in this study was provided by the University Research and Development office as the standard format, therefore it is considered valid and reliable. The questionnaire consists of graduates' personal details, job placement profile, the relevance of college degree or training to their present job, and the quality of BSIT education in terms of curriculum, methods of instruction, faculty, facilities, student services, research services extension services and general administration.

To facilitate the distribution of the questionnaire, the researcher administered it personally and contacted the graduates using a cell phone or by email addresses and social networking sites. Other processes for data gathering used by the researcher were through the courtesy of the graduates' friends and relatives and data was collected over a period of two months.

Data Analysis and Statistical Tools

All the data gathered were organized, tabulated, analyzed, and interpreted using frequency, percentage, ranking, and weighted mean. To interpret the data gathered from the graduates, a Likert Scale was used.

III. RESULTS AND DISCUSSIONS

A. *Socio-Demographic Characteristics*

Table 2: Frequency Distribution of BSIT Graduates by their Personal Qualities/Demographics.

Gender		Frequency	Percentage
1.	Male	71	29.8%
2.	Female	167	70.2%
Total		**238**	**100%**
Civil Status			
1.	Single	198	83.2%
2.	Married	38	16.0%
Total		**238**	**99.2%**
Highest Educational Attainment			
1.	BS Graduate	236	99.2%
2.	With Master's Units	1	0.4%
3.	Pursued other Studies	1	0.4%
Total		**238**	**100%**
Eligibilities			
1. Board Exam		4	1.7%
2. Civil Service		12	5.0%
3. Others		207	87.0%
Total		**223**	**93.7%**

Table 2 shows the characteristics of the graduates in terms of their personal details like gender, civil status, highest educational attainment, and the number of graduates who respond according to the year of graduation. It could be gleaned from the table that the majority of the respondents from Academic Year 2014-2018 are female

graduates with 167 or 70.2% and only 71 or 29.8% males. This could be presumed that female has a high probability of employment.

Most of the graduates were single with 198 or 83.2% and only 38 or 16.0% were married. The highest educational attainment of the graduates was a BS degree with 236 or 99.2% while only 1 or 0.4% are earning master's units and pursued other studies such as law and business management. Likewise, almost all of the graduates from Batch 2014-2018 are eligible with 223 or 93.7%, where 4 or 1.7% are professional teachers, 12 or 5.0% are civil service career professional passers and 207 or 87% are TESDA national certificate II or computer system servicing (CSS) passers.

Year of Graduation	No. of Graduates	No. of Respondents	Percentage of Respondents
2018	76	47	61.84%
2017	94	64	68.08%
2016	67	59	88.05%
2015	79	25	31.65%
2014	48	34	70.83%
Other year not specified		9	
Total	**238**		

From among the total of 238 respondents, the table shows that majority of the respondents are graduates of Batch 2017 with 64 or 26.9% followed by Batch 2016 with 59 or 24.8%. On the other hand, only 25 or 10.5% responded in Batch 2015. It could be also seen in the table that 9 or 3.8% of the respondents did not indicate the year of their graduation. On the other hand, as to the number of respondents based on the number of graduates in the year of graduation, the table above shows that majority of the respondents are the graduates of Batch 2016 with a number of 59 or 88.05%, followed by Batch 2014 with 70.83%, 68.08%, 61.84% and 31.65% from Batch 2017, 2018 and 2015 accordingly.

B. Employment Background

Table 4. Frequency Distribution of BSIT Graduates by Nature of Employment

Nature of Employment	Frequency	Percentage
1. Employed	217	91.2%
2. Self-Employed	4	1.7%
3. OFW	8	3.4%
4. Unemployed	**9**	**3.4%**
Total	**238**	**99.6%**

As presented in table 4, the majority of the graduate respondents are currently employed with 217 or 91.2%. It is noted in the table that only 8 or 3.4% of the graduate respondents were unemployed. The rest were self-employed with 4 or 1.7 %. Local industries are still dominating in the employment locale of BSIT graduates though some of them are still employable internationally as proven by 9 or 3.4%, like in Taiwan, Saudi Arabia, Dubai, Qatar, and Papua New Guinea.

Employment Status

Figure 1 presents the employment status of BSIT graduates. It is interesting to note that 52% of the respondents were already in their Full Time/Permanent/Regular status while 34% are contractual and 10% are Temporary and 4% are Job order. And most of the graduate respondents are working in private companies or organizations while the rest are connected with government institutions.
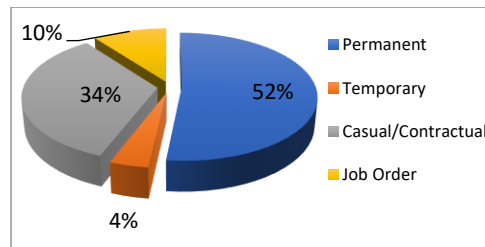
Figure 1. Employment Status

Table 5. Graduates Job Description

Job Description	Percentage	Rank
Information and Communications Technology	46.11%	1
Real Estate, Renting and Business	2.99%	4
Wholesale and Retail Trade	2.40%	5
Health and Social Work	1.20%	7
Financial Intermediation	7.19%	3
Hotels and Restaurants	0.60%	8
Transport Storage and Communication	1.20%	7
Education	1.80%	6
Others	36.53%	2

Table 5 presents the graduate respondents' job descriptions. It could be gleaned from the table that graduates who were employed, 46.11% have jobs related to their course which is Information and Communications Technology while 36.53% have jobs other than the given job descriptions such as Call centers, General Administration, Factory work and others.

Level of Position

Figure 3 shows the level of position of the graduate respondents. The figure revealed that 47% of the graduates have rank or clerical positions. It is also noted in the figure that 38% of them are professional, technical and supervisory and there were about 2% self-employed graduates.
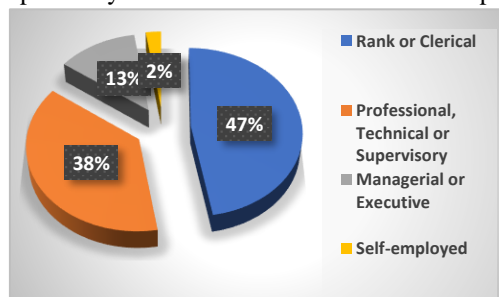

Figure 3. Present Job Level Position

Monthly Earnings

Table 6. Frequency Distribution of Gross Monthly Earnings of BSIT Graduates

Salary Scale	Frequency	Percentage
Below-5,000	3	1.3%
5,000-9,999	35	14.7%
10,000-14,999	95	39.9%
15,000-20,999	52	21.8%
20,000-24,999	23	9.7%
25,000-30,999	12	5.0%
31,000-34,999	2	0.8%
35,000-39,999	2	0.8%
40,000-45,999	2	0.8%
46,000-49,999	1	0.4%
50,000-54,999	1	0.4%
55,000-59,999	0	0.0%
60,000-above	4	1.7%

From the table above, the gross monthly earnings of those employed graduates ranged from P10,000 to 14, 999 with 95 or 39.9% respondents while others had 21.8% or P15,000 to 20,000 monthly. Some of them (5.0%, 0.8% and 1.7%) already earns P25, 000 to 40,000 and P60,000 and above.

Figure 4 reveals that 71% of the respondents obtained their first job in below 1 year, 19% in one year to below 2 years, 3% in two years to below 3 years while 7% of the respondents did not specify the length of time in looking for their first or present job.
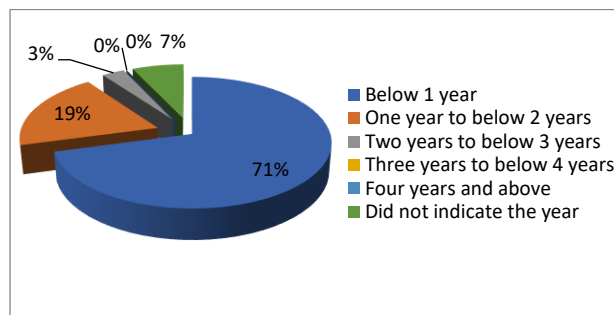

Figure 4. Length of time looking for a job

Table 7. Frequency Distribution of BSIT Graduates in Terms of Reason for Delay of Employment

Reasons for delay of employment	Frequency	Percentage	Rank
a. Delay of Issuance of School credentials	20	8.4%	4
b. Delay in taking/passing the board exam	3	1.3%	9
c. Delay of the issuance of other needed documents	137	57.6%	1
d. No immediate vacancy	98	41.2%	2
e. Tight competition for the job.	6	2.5%	7
f. Available job/s are not in line with specialization	21	8.8%	3
g. Lack of financial support for job hunting	11	4.6%	5
h. Health reasons	3	1.3%	9
i. Early marriage	3	1.3%	9
j. Not emotionally ready	5	2.1%	8
k. others (pls. specify)	10	4.2%	6

The table above shows that 137 or 57.6% of the respondents said that the delay of the issuance of other needed documents is the top reason for the delay of employment followed by no immediate vacancy with 98 or 41.2%; Likewise, available job/s are not in line with specialization with 21 or 8.8% and delay of issuance of school credentials with 8.4%. It could be gleaned from the table that 10 or 4.2% of the respondents specified on the other reasons for delayed employment are due to family concerns. This conforms to the findings of the study of reference [2] that family concern is also one of the common reasons for the delay in employment.

Among the 11 reasons enumerated, the least reasons that the respondents mentioned are health reasons, early marriage, and delay in taking/ passing the board exam with 3 or 1.3%.

Table 8. Frequency Distribution of Factors that facilitated in getting the First/Present job

Factors	Frequency	Rank
a. Educational Qualifications	113	1
b. Assistance of the ISU's Placement office	2	8
c. Government employment office	67	3
d. Media advertisement	26	4
e. Recommendations from relatives/friends	104	2
f. Recommendation from Politicians	2	8
g. Recommendations from former teacher	0	
h. Personnel office of the company	1	9
i. Job fair/DOLE	25	5
j. Former employer/s	11	6
k. On line applications	10	7
l. Others (pls. specify)	2	8

As shown in table 8, the number one factor that facilitated the graduates' respondents in getting their first or present job was based on educational qualifications with 113, followed by recommendations from relatives and

friends with 104. Other ways on how they find their job is through government employment office and media advertisement. The least factor in getting their first job is recommendations from politicians. This implies that graduates tried their best to land get their job on their own where confidence in their educational attainment is being emphasized and practiced.

C. Relevance of Degree in Present Job

Table 9. Frequency Distribution of Relevance of College Degree/ Training in the Present Job

Relevance of College Degree to Present Job	Frequency	Percentage
Very Relevant	95	39.9%
Relevant	103	43.3%
Fairly Relevant	18	7.6%
Not Relevant	12	5.0%

The table above revealed that graduates who were employed have jobs relevant to their course which is *Information and Communications Technology* while other respondents said that is very relevant with 95 or 39.9%. Some of the 18 or 7.6% employed graduates said that their present jobs are fairly relevant while 12 or 5.0% have jobs other than the given job descriptions such as Call Centers, General Administration, Factory work and others.

Table 10. Frequency Distribution of Competencies Learned in College.

Competencies Learned	Frequency	Rank
a. Communication Skills	189	1
b. Human Relation/Interpersonal Skills	98	3
c. Leadership/Managerial Skills	36	5
d. Entrepreneurial Skills	14	7
e. Information Technology Skills	162	2
f. Problem-Solving Skills	16	6
g. Critical Thinking Skills	53	4
h. Research and Extension Skills	7	8

Table 10 describes the graduate's competencies learned in college which they find very useful in their first job. Communication skills, information technology skills, and human relations or interpersonal skills were the top three relevant skills. This conformed to the study conducted by reference [3] that an Information technology skill was very much useful in finding a job. Reference [2] and [1] firmly noted that that communication skills and information technology skills are the most useful competencies learned in looking for jobs. Hence, data proved that the acquired competencies during their college life were highly useful and relevant to their present jobs. Other skills such as problem-solving, entrepreneurial and research, and extension skills were also relevant but were classified the least since they could be acquired as they went along in their job.

D. Quality of IT Education

The quality of IT education was determined in terms of curriculum, methods of instruction, faculty, facilities, student services, research services, extension services, and general administration.

Table 11. Assessment of Quality of Education

Factors	Weighted Mean	Descriptive Equivalent	Rank
Curriculum/Course Content	4.2	Excellent	4
Methods of Instruction	4.46	Excellent	2
Faculty	4.56	Excellent	1
Facilities	3.88	Very Good	7
Student Services	3.84	Very Good	8
Research Services	4.21	Excellent	3
Extension Services	4.05	Very Good	6
General Administration	4.11	Very Good	5

Table 11 presents the assessment of respondent's graduates on the methods of instruction, faculty, facilities, and student services. It could be gleaned from the table that most of the graduate respondents have an excellent assessment of the faculty with a weighted mean of 4.56, followed by methods of instruction with 4.46. This could be attributed that almost all of the faculty is a master's degree holder and doctorate holder. Also, the majority of the faculty earned education units and are registered, professional teachers.

In the findings of the study conducted by reference [4], the students taught by teachers with higher qualifications performed better than those taught by teachers with lower qualifications. It was also revealed that students performed better when taught by professional teachers.

The respondents also rated excellent in research services and curriculum/ course content with a corresponding mean of 4.21 and 4.2. This could be presumed with the assistance and guidance provided by their thesis advisers as well as extending their help and time during consultation hours. Likewise, a regular revision of the curriculum could be the factor why it is rated as excellent by the respondents. This finding is somewhat related to table 9 (Relevance of College Degree to Present Job) where it was noted that those who were employed have jobs that are very relevant to their course. On the other hand, they have a very good assessment of the facilities, student services, extension, and general administration.

Conclusion

Based on the findings of the study, the following conclusions are drawn:

1. Most of the graduates of BSIT for A.Y. 2014-2018 are females and single. A very few graduates pursue further studies, but almost all of them have eligibilities.

2. The greater percentages of respondents are currently employed and most of them are connected in private companies or organizations with full-time and regular or permanent status and the majority of them were receiving almost P10, 000 to less than P15,000 per month. On the other hand, the respondents obtained their first job in below 1 year while the top reason for the delay of their employment is the issuance of other needed documents. When it comes to finding a job, educational qualifications and recommendations from relatives and friends are the topmost factors that facilitate them to get their first or present job.

3. The graduate respondents who were employed have jobs relevant to their course which is Information and Communications Technology. Among the skills and competencies that were found very useful in getting

their first or present job are communication skills, information technology skills, and human relations or interpersonal skills.

4.   Most of the graduate respondents have an excellent assessment of the faculty, methods of instruction, research services, and curriculum/ course content while on the facilities, student's services, extension, and general administration they rated as very good.

References

[1] Ramirez, T., Cruz, L., & Alcantara, N.(2014), Tracer Study of Rizal Technological University, Philippines. ResearchWorld. Journal of Arts, Sciences & Commerce; Vol. 5, Issue-1.

[2] Dotong, C., Chavez,N., Camello, N., De Castro, E., Prenda M.T., & Laguador, J. (2016), Tracer Study of Engineering Graduates of One Higher Education Institution in the Philippines for Academic Year 2009-2012. Europian Journal of Engineering and Technology; Vol. 4, 2016.

[3] Macatangay, L., (2013), Tracer Study of BSCS Graduates of Lyceum of the Philippines University from 2004-2009. Social Sciences and Humanities. Academic Research International. SAVAP International. Vol. 4, No.5.

[4] Owolabi, O.T., & Adedayo, J. O (2012), Effect of Teacher's Qualification on the Performance of Senior Secondary School Physics Students: Implication on Technology in Nigeria. Available from: https://www.researchgate.net/publication/295257732_Effect_of_Teacher's_Qualification_on_the_Per formance_of_Senior_Secondary_School_Physics_Students_Implication_on_Technology_in_Nigeria [accessed Sep 23 2019].

[5] I.Tarun and N. Ubina. (2015). Tracer Study of Bachelor of Information Technology. Unpublished.

[6] Payscale.com.   (2020).   Retrieved   from: https://www.payscale.com/research/PH/Location=Manila/Salary

[7] White, S.K. (2020). The 10 most in-demand tech jobs for 2020 — and how to hire for them. Retrieved   from   https://www.cio.com/article/3235944/hiring-the-most-in-demand-tech-jobs-for-2018.html

[8] Edukasyon. (2018). In-Demand Courses in the Philippines. Retrived from: Blog.edukasyon