Tracer Study of Master in Information Technology Graduates of Isabela State University, Philippines Using eGTS Platform

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Abstract:

The study focuses on the employment status of graduates in the Master in Information Technology (MIT). Descriptive type of research method was utilized in the study. The data gathered are extracted from the online tracer survey questionnaire of the electronic-Graduate Tracer Survey (eGTS). The survey instrument used in the study was provided by the Research and Development Office of the university. It is essentially a locally developed and validated instrument designed for tracer studies by the Commission on Higher Education. Differences on the responses of the graduates were also identified in the different factors affecting MIT graduates' employability in terms of personal factors, academic factors, employment factors, unemployment factors and school related factors. It was also described the employment status of graduates considering the length of waiting period, starting pay, nature of job taken, and relevance of the job to training, mobility and job satisfaction. Results revealed that more than half of the presently employed MIT graduates are in education. Most of the respondents waited for one to six months before being employed in their first job. Salaries and benefits, career challenge and related to special skill are the top three reasons of the MIT graduates for staying in the present job.

Keywords: *Tracer Study, Master in Information Technology, Graduates' Performance, Graduates' Employability..*

I. INTRODUCTION

The College of Computing Studies, Information and Communication Technology, braces a thousand students and some of them enrolled in the Master in Information Technology (MIT) program through quality and up-to-date and significant curriculum. MIT is one of the graduate programs offered in Isabela State University, has Level II Accreditation from Accrediting Agency of Chartered Colleges and Universities in the Philippines, or AACCUP, is making its way to develop Information Technology professionals.

As a thriving institute, the College maintains its identity being an institution of information technology. It tries to look for the newest development in the field, state-of-the-art IT facilities, and efficient curricula it can offer to its clienteles. Its goal for its students to maintain opportunities in the development of their computer skills has been its drive to continue rationalizing its curricula.

With its offering of the MIT since 2008, it has given more extensive opportunities to a number of IT enthusiasts in the province and in the neighboring provinces as well. However, the world of information technology has been moving toward advancement from time to time. This digital revolution is becoming more important than ever. And, to cope with this fast-moving world, a tracer to the students of the graduate program in the MIT is seen necessary. To further improved the curriculum to fit in the industry as well as to prepare the students in the actual work. This is the reason why for purpose of quality assurance of course programs, higher education institutions apply the principles of tracer study to align their efforts with the manpower needs of the industry (CHED CMO #38, c2006).

Tracking the employment status of the MIT graduates would provide baseline information on how they obtained relevant job. One way of measuring the performance of the institution must reflect the quality of their graduates. The quality of graduates would mean a better job opportunity for them. One of the factors that determine the effectiveness is to determine the areas need for further improvement to better deliver the outcome of quality instruction (Ball, 2003).

Since the college is committed to realize the Isabela State University's quality policy to be a lead University in this part of the region, it is only significant to determine the status of the graduates after graduation (Sira, 2018) which could be bases to improve more the delivery of quality education to the existing students as to the relevance of competencies they may acquire while studying (Gines, 2014) (Balingbing, 2014). Additionally, tracer study results is one important tool to address the employment needs and demands of organizations (Macalalad et. al, 2016). It is also one way of strengthening the academe-industry linkages (Dotong, 2016).

Therefore, this study aims to identify the different factors affecting MIT graduates' employability in terms of personal factors, academic factors, employment factors, unemployment factors and school related factors. It was also described the employment status of graduates considering the length of waiting period, starting pay, nature of job taken, and relevance of the job to training, mobility and job satisfaction.

II. OBJECTIVES

A. General Objective

This study aims to investigate the employability of the Master in Information Technology (MIT)graduates of Isabela State University - Cauayan Campus from 2014-2016.

B. Specific Objectives

1. Describe the MIT graduates in terms of sex, civil status, age, province of origin and sources of finances while studying;
2. Identify the factors influencing MIT graduates' employability:
   a. Personal factors: sex, civil status and age;
   b. Academic factors: highest educational attainment and college performance while studying;
   c. Unemployment factors: reasons for unemployment
3. Determine the satisfaction rating on the knowledge and skills acquired from the degree/program, reasons for pursuing the degree program and the relevance rating of the reasons for pursuing the degree or diploma program given by the employed graduates.
4. Describe the employment status of the currently employed graduates in terms of the nature of their job, starting gross monthly salary (in Php), mobility, waiting period before the first job and reasons for staying at present job.

5. Compare the job profile placement of the employed graduates by sex, civil status, age, source/s of finances while in school, highest educational attainment and level of satisfaction on the knowledge and skills acquired from the degree program.

III. METHODOLOGY

This tracer study used descriptive design. The respondents of the study was33 MIT graduates of Batch 2014-2016. This study used the total population of the graduates. There is a total of 33 MIT graduates from 2014-2016. Of which, 29 willingly participated in the study; that is equivalent to an 88% response rate. However, one response was discarded because of missing information. Hence, a total of 28 questionnaires were considered for data analysis.

The graduates were contacted thru their email addresses, mobile numbers and messenger accounts. The respondents were informed on the purpose of the study. Data were gathered through various medium which includes interview through phone call and online survey questionnaire using electronic-Graduate Tracer Survey (eGTS). The eGTS is a completed research project of Isabela State University, implemented by the faculty of the College of Computing Studies, Information and Communication Technology.The eGTS link was send thru their messenger account. The respondents answered the survey thru the eGTS and automatically stored the data. The data were extracted and analyzed by the statistician.

The survey instrument used in the study was provided by the Research and Development Office of the university. It is essentially a locally developed and validated instrument designed for tracer studies by the Commission on Higher Education.

The following statistical tools were used in interpreting the data obtained from the survey: frequency counts and percentage, mean and standard deviation, and F-ratio. The questionnaire consists of the following: 1) socio-demographic profile of the MIT graduates in terms of sex, civil status, age and province of origin; 2) factors influencing the employability of the MIT graduates in terms of personal factors and academic factors; 3) employment status of the MIT graduates in terms of nature of job, starting gross salary, mobility, waiting period before first jobs and reasons for staying at present job; and 4) job profile placement of the MIT graduates and the level of satisfaction of the knowledge and skills acquired from the degree program by the employed MIT graduates.

IV. RESULTS AND DISCUSSIONS

There is a total of 33 MIT graduates from 2014-2016. Of which, 29 willingly participated in the study; that is equivalent to an 88% response rate. However, one response was discarded because of missing information. Hence, a total of 28 questionnaires were considered for data analysis.

Table 1. Socio-demographic Profile of the MIT graduates

Profile Variables	Frequency	Percentage
Sex		
Male	20	71.43
Female	8	28.57
Civil Status		
Single	24	85.71
Married	4	14.29
Age		
26-29	17	60.71
30-35	7	25.00
36 and above	4	14.29
Province of Origin		
Isabela	25	89.29
Quirino	2	7.14
Cagayan	1	3.57
*Source of finances while in school		
Parents	21	75.00
Siblings (brother/s, sister/s)	1	3.57
Relatives	1	3.57
Scholarship	5	17.86
Worked while studying	6	21.43

* Multiple response-item

Table 1 presents the profile of the 28 MIT graduates considered in the Tracer Study of the College of Computing Studies, Information and Communication Technology from 2014-2016. Most of them are male - 71.43% or 20 out of 28. Twenty-four or 85.71% are single and only four are married. The ages of the MIT graduates are from 26 to 47. At the time of the study, 60.71% of the respondents are in their mid to late 20s (26-29 years old). Most of the respondents (89.29%) reside in Isabela. While in the graduate program, 75% said that their parents were their source of finances. Other sources include work while studying (21.43), scholarship (17.86%), siblings and relatives (3.57% each).

Table 2. Employment status of MIT graduates

Employment status	Frequency	Percentage
Employed	20	71.43
Not employed	2	7.14
Never been employed	6	21.43

Among the 28 respondents, 71.43% are employed, 21.43 % are never been employed and 7.14% are not employed.

Factors influencing the employability of the MIT graduates regarding personal factors, academic factors and unemployment factors.

a. Personal factors

Table 3. Demographic factors and employment status of MIT graduates

Employment status	Employed		Not employed		Never been employed	
Profile Variables	F	%	F	%	F	%
Sex						
Male (N=20)	15	75.00	1	5.00	4	20.00
Female (N=8)	5	62.50	1	5.00	2	10.00
Civil Status						
Single (N=24)	16	66.67	2	8.33	6	25.00 -
Married (N=4)	4	100.00	0	-	0	

Age						
26-29 (N=17)	10	58.82	2	11.7	5	29.41
30-35 (N=7)	6	85.71	0	6	1	14.29
36 and above (N=4)	4	100.00	0	-	0	-

Personal factors influencing the employability of the MIT graduates include their sex, civil status and age. For those who are employed during the conduct of the study, occupation and current gross monthly salary are considered as personal factors.

Among the 20 male MIT graduates, 75% are employed and 20% are never been employed. All married respondents are employed. While 67% of the single respondents are employed and 25% are never been employed. For respondents between 26 to 29 years of age, most are employed (59%) and 29% are never been employed. For respondents in their early to mid 30s, most of them are employed (86%). All respondents 36 and above are employed. Employability has a high percentage among males, married respondents and those with ages 36 and above.

b. Academic factors

Table 4. Academic factors and employment status of MIT graduates

Employment status	Employed		Not employed		Never been employed	
Academic variables	F	%	F	%	F	%
Highest educational attainment Baccalaureate (N=0)	0	0.00	0	-	0	-
Masters (N=28)	20	71.43	2	7.14	6	21.43
College performance With honors/awards (N=1)	1	100.00	0	-	0	-
No honors/awards (N=27)	19	70.37	2	7.41	6	22.22
*Source of finances Parents	15	71.43	1	4.76	5	23.81

(N=21)						
Siblings (brother/s, sister/s) (N=1)	1	100.00	0	-	0	-
Relatives (N=1)	0	-	1	100.00	0	-
Scholarship (N=5)						
Worked while studying (N=6)	5	100.00	0	-	0	-
	5	83.33	0	-	1	16.67

Multiple response-item

Academic factors influencing the employability of the MIT graduates include highest educational attainment, college performance and sources of funding while in school.

Out of the 28 respondents, All are graduates of MIT degree program. Of which, 70% are employed, 22% are never been employed and 7% are not employed. Only one among the respondents graduated with an award in college and is presently employed. Among those who graduated with no honors or award in college, most of them are employed (70%). Fifteen out of 21 who said that their parents were their source of finances while in college are already employed. However, 24% are never been employed. All of those who studied under scholarship programs are employed. And 5 out of 6 respondents who were working students in college are presently employed.

There is a high percentage of employability whether an MIT student graduated with a baccalaureate or master's degree, with or without honors or award and whose source of finances are their parents, scholarship programs and/or work while studying.

c. Unemployment factors

Table 5. Reasons for unemployment (N=2)

*Reasons	Frequency	Percentage
Lack of work experience	1	50.00
Further studies	1	50.00
No job opportunities	1	50.00

* Multiple response-item

During the conduct of the study, there were two graduates who are not employed and six who are never been employed. Only those not employed had given their reasons for unemployment. The reasons are lack of work experience, no job opportunities and further studies.

Table 6. Employment Status of the currently employed MIT graduates (N=20)

Employment Status	Frequency	Percentage
Nature of job		
Education	11	55.00
Business and financial operation	2	10.00
Research and development	2	10.00
Construction/Carpentry	4	20.00
IT/Computer Science	1	5.00
Occupation		
Official of Government and Special-Interest Organization, Corporate	1	5.00
Executive, Manager, Managing	4	20.00
Proprietor,	1	5.00
Supervisor	1	5.00
Military, Police Force	4	20.00
Professional		
Technical, Associate Professional	9	45.00
Laborer, Unskilled Worker		
Job Sector		
National government	1	5.00
Local government units	10	50.00
Public Education	8	40.00
Private and Local companies	1	5.00
Employment status		
Regular or Permanent	11	55.00
Temporary	6	30.00
Casual	1	5.00
Contractual	2	10.00
Starting gross monthly salary (in Php)		
Less than 5,000	2	10.00
5,000 - 9,999	6	30.00
10,000 - 14,999	5	25.00
15,000 - 19,999	4	20.00
20,000 - 24,999	3	15.00
25,000 and above	0	-
Waiting period before first job		

Less than a month	4	20.00
1 – 6 months	8	40.00
7 – 11 months	4	20.00
1 year to less than 2 years	3	15.00
2 years to less than 3 years	0	-
3 years and above	1	5.00
*Reasons for staying at present job		
Salaries and benefits	14	70.00
Career challenge	9	45.00
Related to special skill	7	35.00
Related to course/program of study	4	20.00
Proximity to residence	1	5.00
Peer influence	1	5.00
Family influence	1	5.00

*Multiple response-item

A total of 20 MIT graduates are currently employed during the conduct of the study. Eleven or 55% of them are employed in education means they are teaching in the secondary and tertiary levels and some of them employed as administrative staff as MIS Officer. The lowest starting gross monthly salary is less than 5,000 pesos and the highest is 20,000 to 24,999 pesos. The modal starting gross monthly salary is 5,000 to 9,999 pesos. Most of the respondents (80%) have the same place of residence as their place of work or mostly reside in Isabela. Four out of 20 respondents change their place of residence due to location of work place. Most of the employed respondents (40%) waited for 1 – 6 months before their first job. Others, waited for less than a month and 7-11 months (20%). And one out of the 20 respondents had a waiting period of three years and above. Fourteen out of the 20 respondents had chosen the salary and benefits offered by the company or institution as the top reason for staying at their present job. Career challenge was chosen by 45% of the respondents. The relationship between special skill and staying at present job was mentioned by 35% of the employed MIT graduates.

Also, in the different studies conducted in the colleges and universities in the Philippines, most of the graduates look for high salaries and benefits and career challenges as reasons for staying in their job (Macalalad et al, 2016).

Table 7. Relevance rating on the reasons for pursuing the degree or diploma program

Employment status	Employed	Not employed	Never been employed
Reasons			
High grades in the subject area(s) related to the course	2.00	4.00	1.75
Good grades in high school	2.30	5.00	2.20
Prestige in the community	2.64	1.50	3.00
Influence of parents or relatives	3.93	1.50	3.20
Influence of friends/peers	3.62	3.00	4.33
Prospect for immediate employment	2.44	3.00	2.50
Provided with a college scholarship	3.75	4.50	4.00
More job opportunities available to ISU graduates	3.67	-	5.00
Availability of course offering in ISU	3.33	-	2.50
Wants to get a prestigious job	2.00	-	-
Affordable for the family	4.00	-	-
Strong passion for the profession	3.40	-	-

The qualitative description of the mean ranks was based on the Tracer Study of PNU Graduates by Prof. Adelaida C. Gines, Ph.D. as published in the American International Journal of Contemporary Research, Vol. 4 No.3: March 2014. The mean ranks is based on the scale given below.

1.00 - 1.50 Not relevant
1.51 - 2.50 Somewhat relevant
2.51 - 3.50 Relevant
3.51 - 4.50 Very relevant
4.51 - 5.00 Extremely relevant

The highest mean relevance rating given by the employed respondents is the affordability for the family (4.00), followed by influence of parents or relatives (3.93). The lowest mean relevance rating is for high grades in the subject area(s) related to the course and the desire to get a prestigious job. The highest mean relevance rating was given to

good grades in high school (5.00) and the lowest mean relevance rating of 3.00 is for influence of friends/peers and prospect for immediate employment as given by the not employed respondents. However, for those never been employed graduates, the highest mean relevance rating is for more job opportunities available to ISU graduates which is a good indicator that students must not contented only to graduate in their bachelor degrees but to further their studies in the masters program. And the lowest mean relevance rating is in high grades in the subject area(s) related to the course (1.75).

Table 8. Satisfaction rating on the knowledge and skills acquired from courses/degree program as a factor affecting the employability of MIT graduates

Employment status	Employed (N=20)	Not employed (N=2)	Never been employed (N=6)	Over-all Rating (N=28)
Knowledge/Skills				
Proficiency in written English	2.25	1.00	1.83	2.07
Proficiency in spoken English	4.35	3.00	4.83	4.36
Use of MSWord, PowerPoint, Adobe, AutoCAD, etc. (IT skills)	4.30	4.50	4.83	4.43
Proficiency in written Filipino	4.05	4.50	4.83	4.25
Proficiency in spoken Filipino	3.50	4.50	2.83	3.43
Interpersonal communication	3.20	4.50	3.67	3.39
Creative and critical thinking	4.05	4.50	4.33	4.14
Analytical Problem-solving	4.05	5.00	4.33	4.18
Team work/working with others in a group	4.15	4.50	4.17	4.18
Exposure to general knowledge and current	4.25	4.50	4.33	4.29
	4.30	4.50	4.67	4.39

issues				

The qualitative description of the mean ranks was based on the Tracer Study of PNU Graduates by Prof. Adelaida C. Gines, Ph.D. as published in the American International Journal of Contemporary Research, Vol. 4 No.3: March 2014. The mean ranks is based on the scale given below.

> 1.00 - 1.50 Very low satisfaction
> 1.51 - 2.50 Low satisfaction
> 2.51 - 3.50 Moderate satisfaction
> 3.51 - 4.50 High satisfaction
> 4.51 - 5.00 Very high satisfaction

The quality of education was determined by the satisfaction rating given by the respondents on the knowledge and skills acquired from their course/degree program.

The top three knowledge/skills acquired from the course/degree program for the MIT graduates who are presently employed are proficiency in spoken English (4.35), exposure to general knowledge and current issues and IT skills in the use of MSWord, PowerPoint, Adobe, AutoCAD, etc. (each with a rating of 4.30). Whereas, proficiency in written English has the lowest mean rank of 2.25.

For those MIT graduates who are not presently employed, a very high satisfaction rating in analytical skills (5.00). Proficiency in written English has the lowest mean rank (1.00) with a very low satisfaction rating.

For the MIT graduates who were never been employed, a very high satisfaction rating of 4.83 was given to both proficiency in written English and IT skills. A low satisfaction rating of 1.83 was given to proficiency in written English.

Over-all, the 28 respondents gave a mean satisfaction rating of 4.43 to IT skills in the use of MSWord, PowerPoint, Adobe, AutoCAD, etc. and mean satisfaction rating of 2.07 to proficiency in written English.

V. CONCLUSION

As the result of the Tracer Study of the College of Computing and Information Technology from 2014-2016 about the 28 MIT graduates, it found out that most of the graduates are male and their ages are from 26 to 47. While pursuing their masters, most of the respondents said that their source of finances were from their parents and other sources include work while studying, scholarship, siblings and relatives.

There are three factors identified that influenced graduates' employability these are Personal Factors, Academic Factors, and Unemployment Factors.

Most of the employed respondents waited for 1 – 6 months before their first job.
A total of 20 MIT graduates are currently employed during the conduct of the study most of them are employed in education. The lowest starting gross monthly salary is less than 5,000 pesos and the highest is 20,000 to 24,999 pesos. Most of the respondents have the same place of residence as their place of work.

In terms of personal factors, there was a high percentage of employability among males, married respondents and those with ages 36 and above. In academic factors, it figured out that there still a high percentage of employability whether an MIT student graduated with a baccalaureate or master's degree, with or without honors or award and whose source of finances are their parents, scholarship programs and/or work while studying. Under employment factors, the job satisfaction of the respondents was determined by their reasons for staying in their present job. Salaries and benefits career challenge and related to special skill are the top three reasons for staying in the present job. In unemployment factors, we found out in our study that two graduates who were not employed and six who were never been employed. Only those not employed had given their reasons for unemployment and their reasons were lack of work experience, no job opportunities and further

studies. All the respondents gave a mean satisfaction rating of 4.43 to IT skills in the use of MSWord, PowerPoint, Adobe, AutoCAD, etc. and mean satisfaction rating of 2.07 to proficiency in written English.

VI. RECOMMENDATION

Follow-up study may be conducted to determine the impact of the curricula in their present job and to determine the employer's perception in the performance of their IT employee.

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