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IT Employment in Metro Manila: An Investigation between Certification and Degrees in Information Technology Company

Rhonnel S. Paculanan[1*], Angelo C. Arguson[2], Marvin P. Mabborang[3]

[1]Arellano University Manila, Philippines.*
[2]FEU-Tech. Manila, Philippines.
[3]Department of Education, Manila, Philippines.

Email: [2]acarguson@feutech.edu.ph, [3]marvin.mabborang@deped.gov.ph
Corresponding Email: [1]rhonnel.paculanan@arellano.edu.ph*

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Abstract: Considering technology is central to modern-day living, it is no surprise that the employee of the information technology industry is in great demand worldwide. However, there are other aspects to consider, so breaking into that business is not as straightforward as it may appear. This study focuses on a few critical criteria that have a substantial influence on the employment rate in the IT industry, such as a specific person's credentials, such as a graduate in information technology, IT-related certification, or both. The goal of this study is to determine if people with degrees or simply certifications increase the likelihood of success in securing positions in the computer technology business.
The investigators of the study collected information from 50 IT employees in Metro Manila, who then assembled their findings utilizing the correlational technique used as the design, as well as unbiased and snowball sampling. approaches as the sampling methods and one-tailed t-test and Anova as the statistical tools. After reviewing the data, the investigators concluded that college or university degrees are still highly regarded by companies when assessing job applications and that those with them are more vulnerable to getting prestigious positions. IT certifications, on the other hand, are only a bonus.

Keywords: Information Technology, Credentials, Certifications.

1. INTRODUCTION

Certification has acquired well-liked as an addition to conventional means of gaining IT skills, with an increase in the number of job advertisements expressing an opinion for people with certificates. Certifications, as opposed to equipped academic degrees, are limited to certain

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sectors or products. They are intended to give specific abilities that are immediately applicable to the job.

Microsoft Azure Certifications, Azure DevOps Engineer Expert, Windows Server Certifications, Cisco Certified Network Professional, and Cisco Certified DevNet Professional, vendor-specific certification market is internationally dominated by firms like Microsoft and the Cisco Systems industry globally. Vendor-neutral certifications, such as those provided by the CompTIA, Certified Information Systems Security Professional (CISSP), Certified Information Security Manager (CISM), Certified Information Systems Auditor (CISA), and Certified ScrumMaster are essential. in accordance with PhilNITS, 153 certification examinations can be taken and there are lots of Filipinos who passed the said certification examination. An IDC Inc. survey, according to Gabelhouse (2000), revealed that the IT training and testing industries earned $2.5 billion in sales in 1999. Vendors create certifications to promote general acceptance of their products and technology, but they have also become important for educational institutions in acquiring learners and promoting graduates (Brookshire, 2000).

College degrees and certificates have historically been the most important credentials for the IT industry (Lasheen, 2015). In fast-expanding fields involving the administration of projects, software creation, and financial evaluation, professional certifications may show expertise, according to Cunningham (2016). The degree of expertise or knowledge required to do a particular occupation is therefore demonstrated, and this may be used to improve academic achievement. Contrary to comparable research, university degrees in computer science are valued significantly more by IT recruitment managers than certifications because they have a shorter lifespan (Heffernan, 2014; Lasheen, 2015). The line separating which skills provide IT candidates an advantage in the hiring process is still fuzzy today. The present investigation seeks to clarify how university degrees and certificates differ in terms of job success and accessibility in the IT industry.

Statement of the problem: The intention of the investigation is to determine if those with degrees or those with certifications have quicker entry to and better outcomes in IT-related employment.

The following queries are addressed by this research:
• Who is more likely to get employed first?
• Who is more likely to find a good job?
• What positions in IT necessitate education or certifications?

Mission: The researchers established a few specific study objectives because of the aforesaid problems:
To fully understand the correlation between productive IT-related employment and the degrees that holders have obtained.
This goal is broken down into deeper ones in order to carry out a more in-depth analysis. These are additional objectives:

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- To assess the chances of employment based on an individual's qualifications.
- Based on their skills and experience, evaluate a person's prospects of landing a high-paying job.
- Determine whether IT occupations demand college degrees or certifications.

Scope and Limitation

The researchers hope to get an understanding of the credibility of certificates in comparison to the legitimacy of academic degrees so that they may decide whether to pursue them. The study is restricted to achievements as determinants of employment in IT-related occupations.

The aim of this research is to take a peek at the employment rates of people with academic degrees and certificates, regardless of whether they are starting point, intermediary, mid-level, or senior-level workers. Furthermore, the researchers will assess how many IT experts possess higher education but require IT certifications. The investigation is constrained by the amount of educational credentials held by the workforce. Furthermore, the survey is limited to IT workers in Metro Manila-based firms.

Conceptual Framework

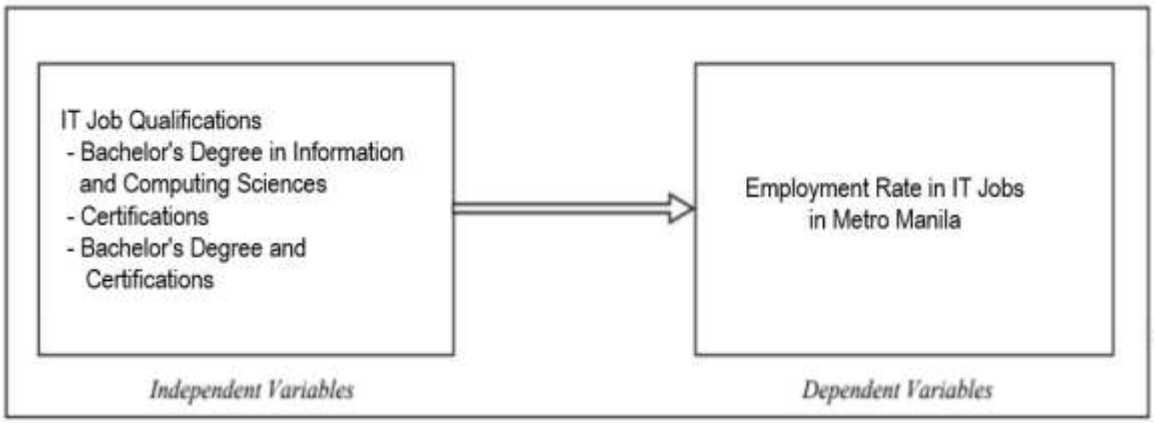

Figure 1.1 IT Jobs in Metro Manila, an Occupation Rate Conceptual Framework

The Figure above depicts a conceptual framework for the research and use of data from earlier studies and associated literature that had a substantial influence on how the independent variable was formed and how it affected the dependent variable.

The purpose of this research is to examine the effectiveness of university degrees and certificates regarding job opportunities. This, according to the investigators discriminates across the two criteria. To that purpose, the investigators propose to deliver forms assessments that were sent out to a total of 50 participants, with a specific concentration on IT employees working in Metro Manila-anchored companies. Based on their academic credentials, the Investigators will be capable of making inferences regarding the percentage of achievement of the personnel.

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The researchers will put the following theories to the test:

- There is no substantial association between credentials and career possibilities.
- There is a strong correlation between an undergraduate diploma in technological fields and job satisfaction.
- Evidence suggests that there is a direct correlation between competence in IT and job satisfaction.
- An associated information technology university degree and computer-related qualification have a significant relationship with employment rates.

2. METHODOLOGY

The entire investigation of this research will be carried out utilizing quantitative approaches. It will handle the degree and certification, two significant work needs, by administering a questionnaire and interpreting the replies to achieve the findings. "Quantitative research involves the collection of data so that information can be quantified and subjected to statistical treatment in order to support or refute alternative knowledge claims," (Leedy Ormrod 2001; Williams, 2011).

Cormack claims that a research design displays the study's most essential methodological thrust, this is a customary and distinctive technique that is the greatest method to respond to inquiries. The investigation's inquiries the research's primary goal, and the objectives all have an impact on the style of studies (Cormack & Brink, 1999).
The present research employed a statistical and comparison approach and form assessments were employed as investigation tools to evaluate the link between having a credential in technological projects and having IT qualifications and career possibilities rate of IT jobs. Employees from several IT businesses in Metro Manila were given survey questionnaires relevant to the study's goals.

Purposive Sampling was employed for the purpose of testing in this investigation. A sample with a specific intent, also known as a non-probability sample, also known as judgmental, deliberate, or arbitrary sampling, is chosen pursuant to demographic attributes and the goal of the 15 research (Crossman, 2020). In the present study, the researchers gathered 50 participants. from a pool of 50 Information Technology experts, which was sufficient for this study. This is corroborated by DELCE (2010, referenced in Altunşk et al., 2004), who said that "for most studies, a sample size of between 30 and 500 at a 5% confidence level is appropriate."

Statistical Tools

The researchers have to scientifically examine the data collected through a questionnaire. To establish if there are any significant differences between the groups, they would need to examine the three independent factors that influence the dependent variable and use the ANOVA test for statistical significance as well as a 1-tailed t-test. The intent of this test is to discover the link between three factors that have an impact on the result. Kenton (2021). The data will be distributed into three categories: those with certificates, those with college graduates, and those with both college graduates and certifications.

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Presentation of Findings

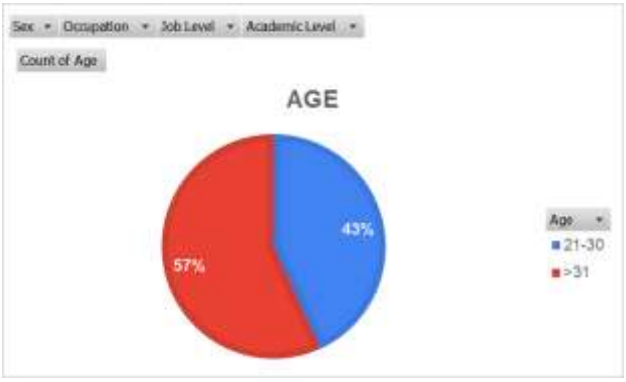

Figure 2 Age Dispensation of the Selected Participants

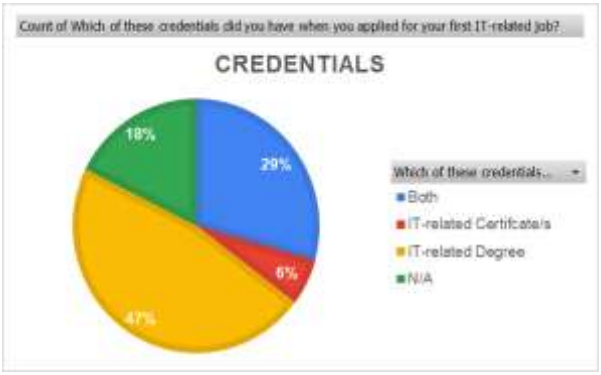

Figure 3. Pie chart of Participants' credentials in their initial computer technology occupation

The poll participants' age range. In accordance with the data, 57% of participants are above the age of 31, although the other 43% are joining the ages of 21 and 30. However, the information reveals that the respondents' mean age is 33 years.
Respondents' qualifications when they sought the initial job in Computer Technology. In accordance with the graphic, 6% had Computer Technology-related Certificate/s, 18% had none, 29% had both, and the other 47% had solely IT-related degrees.

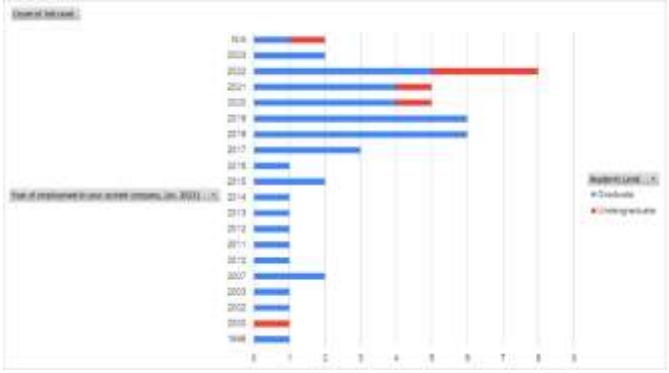

Figure 4. Academic Level of Participants

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The data collected showed that 45 participants (86.54%) had a graduate course in a computer technology-associated field, while the other part containing 7 (13.46) did not. In addition, the diagram gave crucial information concerning each respondent's term of employment, with the greatest employment period being 27 years (employed since 1996). By comparison, the respondents' average length of work is less than a year (employed since 2023).

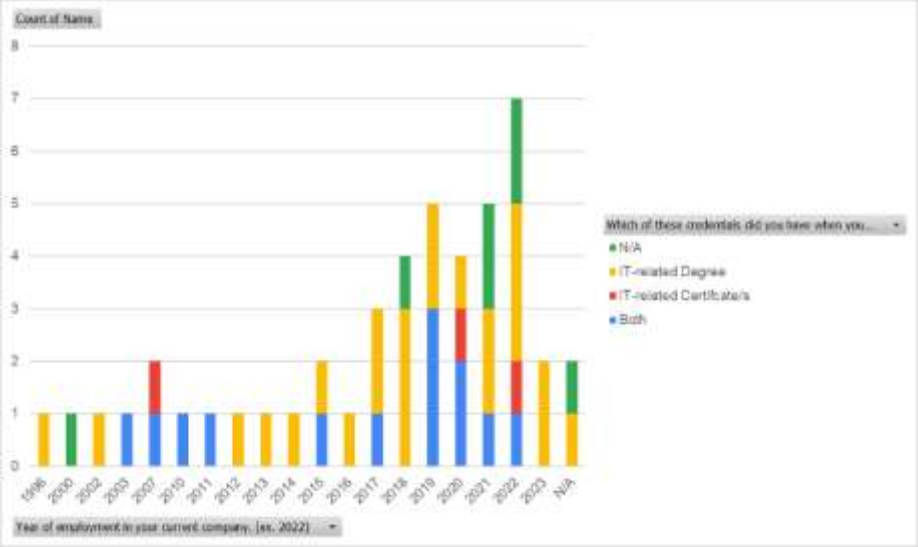

Figure 5. Credentials of Participants on their initial Computer Technology-Related Occupation

This figure illustrates the qualifications each participant held when they applied for their first computer technology-related occupation. In accordance with the figures, 42.31% of participants had an IT-related degree, 5.77% had a computer technology-related certificate, 25% had both an had a computer technology-related and a certificate, and 13.46% were just beginning their first computer technology-related occupation.

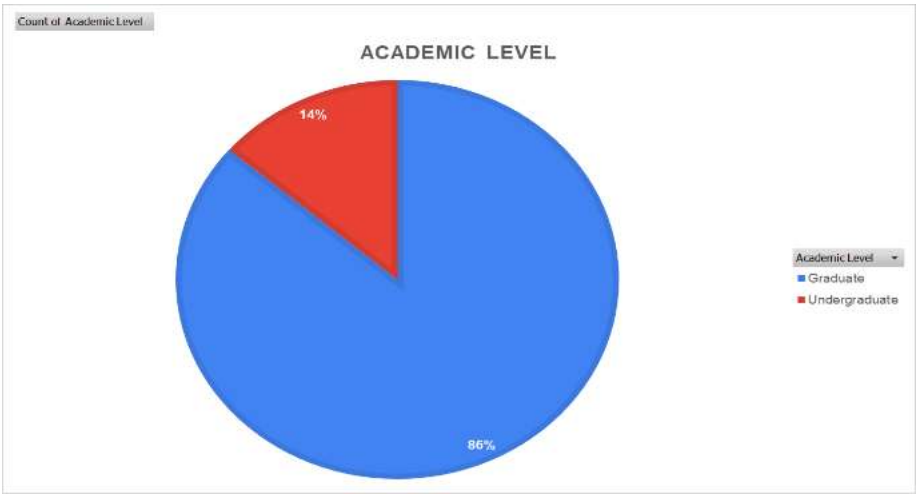

Figure 6. Academic Level of Respondents

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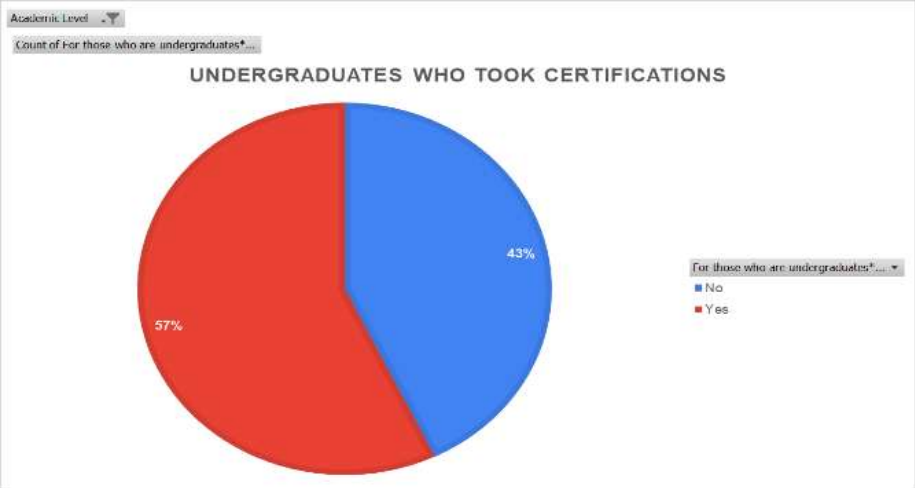

Figure 7. Pie graph of not graduates of computer technology-related courses who took certifications

Four of the 24 respondents who had an IT-related degree in their first computer technology occupation are currently working at entry-level, three are in first-level administration, another three are in middle administration, ten are in intermediate or experienced administration, and the remaining four are in executive or senior administration. On the other hand, one of the three responders with computer technology qualifications is now in entry-level administration, another is in first-level administration, and the last is in executive administration. Moreover, two of the 15 respondents with a computer technology-related course and certificate/s have an entry-level position, one is in first-level administration, three are in middle administration, six have an intermediate or experienced level, and the others are unemployed.

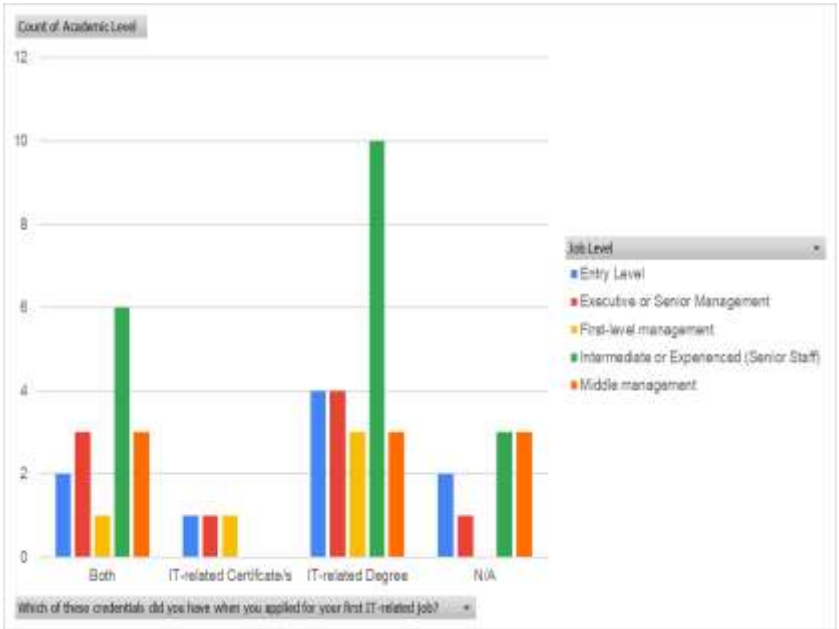

Figure 8. Credentials used in First IT-Related Job and their current Job Level

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Anova: Single Factor

SUMMARY

Groups	Count	Sum	Average	Variance	
Row 1	50	3	0.06	0.05755102	Certifications
Row 2	50	23	0.46	0.253469388	Degrees
Row 3	50	15	0.3	0.214285714	Both
		41			

ANOVA

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	4.053333333	2	2.026666667	11.57420357	0.000021	3.057620652
Within Groups	25.74	147	0.175102041			
Total	29.79333333	149				

Figure 9. Anova Single Factor Statistic between the three independent variables

The relatively low P-value suggests that there are substantial differences between the three groups when using a t-test with 95% similarity to each group.

t-Test: Two-Sample Assuming Equal Variances		CERTS VS DEGREE		
	Variable 1	*Variable 2*		
Mean	0.06	0.46		
Variance	0.057551	0.253469		
Observations	50	50		
Pooled Variance	0.15551			
Hypothesized Mean Difference	0			
df	98			
t Stat	-5.07166			
P(T<=t) one-tail	9.34E-07			
t Critical one-tail	1.660551			
P(T<=t) two-tail	1.87E-06		0.0167	TRUE
t Critical two-tail	1.984467			

Figure 10. One-tailed T-test results between the certifications and degrees

The study discovered that having a certification differs from having a bachelor's degree 95% of the time. This suggests that certification has a far greater employment rate than a degree.

t-Test: Two-Sample Assuming Equal Variances		CERTS VS BOTH		
	Variable 1	*Variable 2*		
Mean	0.06	0.3		
Variance	0.057551	0.214286		
Observations	50	50		
Pooled Variance	0.135918			
Hypothesized Mean Difference	0			
df	98			
t Stat	-3.25493			
P(T<=t) one-tail	0.000779			
t Critical one-tail	1.660551			
P(T<=t) two-tail	0.001557		0.0167	TRUE
t Critical two-tail	1.984467			

Figure 11. One-tailed T-test results between the certifications and degrees & certifications

The study discovered that having a bachelor's degree plus certification is more likely than having a certification alone. This suggests that having a certification has a lower influence on employment than having both a degree and a certification.

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t-Test: Two-Sample Assuming Equal Variances		DEGREE VS BOTH		
	Variable 1	*Variable 2*		
Mean	0.46	0.3		
Variance	0.253469	0.214286		
Observations	50	50		
Pooled Variance	0.233878			
Hypothesized Mean Difference	0			
df	98			
t Stat	1.654229			
P(T<=t) one-tail	0.05064			
t Critical one-tail	1.660551			
P(T<=t) two-tail	0.101281		0.0167	FALSE
t Critical two-tail	1.984467			

Figure 12. One-tailed T-test results between the degrees and degrees & certifications

The researchers discovered that having a bachelor's degree had a 95% likelihood of being comparable to having both a bachelor's and a master's degree.

Summary

Although we live in a "world of information," information technology is becoming a part of our everyday lives, and many businesses now have IT departments to handle their computers, networks, and other technical parts of their operations. The purpose of this research is to compare the effect of Information Technology (IT) certifications and college graduates on the employment likelihood of computer technology jobs in Metro Manila. This investigation tries to answer the following questions in order to address the problem: (1) Who is more likely to get employed first, (2) Who is more likely to obtain a well-paying job, and (3) Which computer technology career jobs require certifications and/or degrees? Data on the employment rate of persons with academic degrees and computer technology-related certifications was acquired from IT workers in Metro Manila-based enterprises as a result.

A survey questionnaire was provided by the researchers, and 50 IT experts answered. The survey questionnaire included questions on the respondent's age, employment, work level, academic status, year in the IT field, and credentials when they applied for their first computer technology-related job. The statistical techniques ANOVA and One-tailed T-test were employed in the study to evaluate and interpret the data. Overall, the researchers came to the conclusion that obtaining a bachelor's degree in computer technology-related subjects is far more important when joining the IT profession.

3. CONCLUSION

Regarding data collection from respondents, the researchers reached a result in the study Employment of IT Jobs in Metro Manila: A Comparative Study Between Certifications and Degrees in Information Technology.

Information Technology and other related careers are in great demand since technology increasingly penetrates all parts of life. As a result, both existing organizations and new initiatives have a high demand for IT personnel globally. In this study, the researchers looked at elements that have a major influence on employment rates, such as a person's educational background and professional credentials.

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In light of this, the researchers concluded that companies still respect a bachelor's degree when assessing a job candidate and that those with one are more likely to secure good profit-paying employment. IT credentials, on the other hand, are only a plus.

Recommendation

The researchers offered the following suggestions based on their findings in the study of computer technology Job Employment in Metro Manila: A Comparative Study of Certifications and Degrees in Information Technology. The researchers suggest future researchers include more elements to assist readers' judgments about gaining certification and a degree. It is also recommended that future studies extend the sample size of IT employees for this study and do not limit it to a particular region. This would allow future researchers to draw more exact findings regarding how degrees and certificates impact employment rates. Consider restricting the range of years of the respondent's initial year of employment to avoid making the data irrelevant, and take into consideration the respondents' years of progress that led to their current position.

The researchers in this study gathered data from IT personnel. This time, future researchers should alter their replies to employers in IT firms. This study may be used as a foundation for future researchers to develop thoughts for a better quantitative study, an improvement in data correctness, and a study by giving it another task to solve. It will also lay the groundwork for a fresh understanding of the subject. Finally, the researchers hope that students will utilize this study as a resource to better their own research.

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