Career Pathways and Employment Outcomes

of BSIT Graduates: A Tracer Study of ISATU Miagao Campus Alumni

ABSTRACT

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| This study explored the employment outcomes of the Bachelor of Science in Information Technology (BSIT) graduates from ISATU Miagao Campus, specifically examining their employment status, type, work affiliation, and nature of work. The study also aimed to determine the association of gender and civil status to these employment factors. Using a descriptive-correlational research design, data were collected through a self-administered questionnaire from 352 graduates spanning 2005 to 2024. The survey assessed demographic data and employment variables, with analysis conducted using frequency, percentage, and Chi-square test. Findings indicate that a substantial majority of the respondents were employed, whose employment affiliations were predominantly in the private sector. Association of gender to employment status and work affiliation were notable. Additionally, most graduates occupy positions in ICT-related roles, highlighting the alignment of their academic background with industry requirements. The study concludes that the BSIT graduates as a whole are inclined to get employed. Specifically, while male graduates are more likely to obtain employment, females when employed are likely to be affiliated with a private company. These findings underscore the importance of preparing students for diverse employment settings, especially in IT-related fields, while also providing insights for institutions, employers, and policymakers on the employment landscape for IT graduates. Recommendations include curriculum enhancements, targeted career support, and partnership initiatives with industry stakeholders to optimize graduate employability and |

*Keywords: Employment outcomes, BSIT graduates, Work affiliation, Gender and civil status, Information Technology employability*

1. INTRODUCTION

Workers in Industry 4.0 must be proficient in new forms of literacy, such as digital, technological, and human literacy (Lestari S. a., 2019). This study holds significant value for multiple stakeholders, particularly for the graduates, the academic institution, and industry partners. First, the findings of this study will provide a comprehensive understanding of the employment trends among BSIT graduates. By examining the employment profile—such as employment status, employment type, work affiliation, and nature of work—this study can guide future graduates in aligning their academic achievements with the demands of the job market. Additionally, the study offers insights into how gender and civil status are associated to employment outcomes, helping graduates understand potential challenges and opportunities. Second, the data gathered will allow the institution to assess the effectiveness of its BSIT program in preparing students for the workforce.

Graduate employability and workforce readiness have become critical priorities in higher education as the job market rapidly evolves. Studies highlight the role of digital literacy—encompassing critical thinking, operational skills, collaborative learning, and technology use—in enhancing both employment opportunities and academic performance (Khan, Sarwar, Chen, & Khan, 2022). Digital literacy directly contributes to employability by enabling individuals to secure, retain, and progress in their careers (Vrana, 2016), with evidence showing that digital, technological, and human literacy significantly influence work readiness by over 50% (Lestari & Santoso, 2019). However, disparities persist, as gender and civil status continue to shape employment prospects. Women often face higher unemployment rates than men, as seen in global and Philippine contexts, where a 26.2% gender gap was recorded in 2012 (The Gender Gap in Employment, 2022; Gender Equality in the Labor Market, 2013). Marital status can also influence outcomes, with some studies showing higher employment rates among married individuals (Flejoles & Garcia, 2023), while others find no substantial correlation between marital or parental status and job satisfaction (Kulik, 2001).

Higher education institutions (HEIs) play a vital role in enhancing graduate employability by equipping students with relevant skills. Government policies often shape HEI approaches, focusing on internal skill development while overlooking external factors such as age, race, gender, and labor market conditions (Cheng, 2022). Despite the growing emphasis on employability, there is still no clear consensus on which skills are most critical, and employer engagement in such initiatives remains inconsistent (Tight, 2023). The widening gap between academic training and industry needs underscores the necessity for collaboration among universities, industries, and professional platforms to bridge skill mismatches and prepare graduates for evolving workforce demands (Bridging the Employability Gap, 2024).

Understanding the employment patterns of graduates will help the campus enhance its curriculum and align it more closely with the needs of the industry. Moreover, identifying the factors that influence employment success can help the institution develop more targeted career support services, especially with respect to gender and civil status considerations. Third, employers and industry partners can benefit from this study by gaining insights into the characteristics and capabilities of ISATU Miagao Campus graduates. The study will help them identify strengths, gaps, and areas for potential collaboration, such as targeted training programs or internships, that could further improve graduate employability. Lastly, this study will also serve as a foundation for future research on the employability of graduates from the Information Technology field, specifically in the context of rural campuses like ISATU Miagao. It can provide comparative data for other studies, particularly those interested in how gender and civil status impact employment outcomes in technology-related fields.

## **Objectives of the Study**

This study aimed to answer the following questions:

1. What is the employment status of the BSIT graduates when taken as a whole and when grouped according to gender and civil status?
2. What is the employment profile of the employed BSIT graduates in terms of work affiliation, employment type, and nature of work when taken as whole and when grouped according to gender and civil status?
3. Is there a significant association between the gender and the employment profile of the employed BSIT graduates in terms of work affiliation, employment type, and nature of work?
4. Is there a significant association between the civil status and work affiliation of the employed BSIT graduates?

The conceptual framework of the study was illustrated in Figure 1 showing the independent and dependent variables of the study.

 Figure 1. *The Conceptual Framework of the study*

As depicted in the conceptual framework, this study examined the employment outcomes of Bachelor of Science in Information Technology (BSIT) graduates by analyzing the relationship between specific independent and dependent variables. The independent variables focus on demographic factors, such as gender and civil status, which may influence graduates' employability.

Additionally, the employment status is considered, categorizing graduates into two main groups: employed and unemployed. This allows the study to investigate both the likelihood of securing a job and the factors that may contribute to employment challenges for certain demographics.

For those who are employed, the dependent variables provide further insights into the quality and characteristics of their employment. Work affiliation, employment type (such as full-time, parttime, or contractual), and the nature of work highlight the type of roles BSIT graduates hold and the industries that hire them. These variables are crucial for understanding whether graduates are able to find positions relevant to their field and if they are securing stable and fulfilling jobs within the industry.

By analyzing these variables, the study aimed to uncover trends in employability for BSIT graduates that could inform educators, policymakers, and institutions. Insights gained may be used to enhance curriculum design, career support services, and policies that support BSIT graduates in obtaining meaningful employment that aligns with their skills and training. This approach seeks to bridge the gap between educational outcomes and industry demands, thereby fostering a future ready workforce.

2. material and methods / experimental details / methodology

This study employed a descriptive-correlational design to assess the employment profile of BSIT graduates from ISATU Miagao Campus. It aims to describe their employment status, employment type, work affiliation, and the nature of their work, both as a whole and when grouped according to gender and civil status. Additionally, the study determined the association of gender and civil status to these employment outcomes.

The respondents came from various batches, with a total of 352 graduates. The batch of 2019 had the largest representation, making up 43.18% of all the respondents, with 152 individuals. Following 2019, the batch of 2022 contributed 32 respondents, or 9.09% of the total, while the 2018 batch had 28 respondents, accounting for 7.95%. The 2020 and 2021 batches had similar levels of representation, with 25 (7.10%) and 27 (7.67%) respondents, respectively. The 2023 batch included 24 respondents, making up 6.82% of the total, and the 2024 batch included 19 respondents, or 5.40%. Several earlier batches also contributed smaller proportions to the overall respondent pool. For instance, the 2015 batch had 13 respondents (3.69%), while the 2017 batch included 8 respondents (2.27%). Additionally, the batches from 2016, 2011, and 2012 had lower contributions with 6 (1.70%), 4 (1.14%), and 4 (1.14%) respondents, respectively. Small but notable groups came from the 2014, 2005, 2009, and 2008 batches, with fewer than 1% each.

Finally, the batches of 2007 and 2010 had the lowest representation with only 1 respondent each, making up just 0.28% of the total respondents. Overall, this distribution highlights a significant concentration of respondents from recent years, particularly from the 2019 batch, with diminishing numbers from earlier graduation years.

The respondents were the BSIT graduates from the 2005 to 2024, they were identified through accidental sampling, only those who were available during the data collection period from October 1-31, 2024. A self-administered questionnaire was used for data collection. The questionnaire gathered demographic information (gender and civil status) and details on employment outcomes, including employment status (employed or unemployed), employment type (full-time, parttime, or contractual), work affiliation (government, private sector, or self-employed), and the nature of work (IT-related, administrative, etc.). The survey was distributed online, with follow-up through phone or in-person methods for those who were not accessible online.

Descriptive statistics such as frequency and percentage were used to summarize the data on employment status, type, affiliation, and the nature of work. To assess the relationship of these employment factors to gender and civil status, Chi-square test for categorical data was employed.

Ethical consideration was strictly followed. Respondents were provided with informed consent, and their data will remain anonymous and confidential.

3. results and discussion

**Employment Status of the BSIT Graduates**

Findings of the study revealed that out of the entire group of graduates, 288 (81.82%) were employed, while 64 (18.19%) were unemployed. This shows a relatively high employment rate among the graduates, indicating that the majority had found work post-graduation.

On the one hand, male graduates had higher employment rate, with 87.94% (124) employed compared to 12.06% (17) unemployed. On the other hand, female graduates had an employment rate of 77.72% (164), with a higher unemployment rate of 22.27% (47). This disparity suggests that male graduates may have better employment prospects or face fewer barriers in securing jobs than their female counterparts.

Civil status also appears to influence employment outcomes. Among single graduates, 81.23% (264) are employed, and 18.77% (61) are unemployed. Married graduates, however, show a higher employment rate, with 88.89% (24) employed and only 11.11% (3) unemployed. This could indicate that marital status has a positive association with employment stability, possibly due to additional financial responsibilities or social factors that encourage stable employment among married individuals.(same here)

**Employment Profile of the Employed BSIT Graduates**

In terms of work affiliation, a majority of the graduates, 78.39% (220 individuals), were employed in the private sector, while 23.61% (68 individuals) worked in government agencies. This suggests that private sector opportunities are more prevalent or accessible for BSIT graduates compared to government positions. Regarding the employment type, 60.07% (173) of graduates held permanent positions, indicating stable employment for the majority. A smaller portion, 5.56% (16), were employed as casual employees. The remaining 34.38% (99) were in various other types of employment, reflecting some diversity in employment arrangements but also highlighting that a significant number of graduates may not have full job security. The nature of work reveals that 30.91% (89) of graduates were in ICT-related jobs, depicting alignment with their field of study. The findings from a follow up tracer study of BSIT graduates revealed that the graduates' occupation is usually in the BPO Industry which is related to their field of specialization (Lumauag, 2015).

Other notable fields include government services (17.36%, or 50 individuals) and business and finance (17.71%, or 51 individuals). Smaller proportions worked in the academe (9.03%, or 26), construction and manufacturing (7.29%, or 21), and various other fields (17.71%, or 51). This distribution shows that while many graduates find roles directly related to ICT, a considerable number also diversify into other industries, indicating the versatility of their skills across multiple sectors.

Moreover, the study reveals distinct patterns of employment profile of BSIT graduates by gender across work affiliation, employment type, and the nature of work. In terms of work affiliation, a higher percentage of female graduates (81.10%) were employed in the private sector compared to 70.16% of male graduates. Conversely, male graduates had a greater presence in government jobs, with 29.84% employed in this sector versus 18.90% of female graduates. This distribution suggests that female graduates are more inclined or able to secure positions in the private sector, while males may have more opportunities or preference for government roles.

When examining employment type, both male and female graduates show similar trends, with the majority holding permanent positions—58.87% of males and 60.98% of females. A smaller percentage of both genders work in casual positions, 4.84% for males and 6.10% for females, while the remaining are in various other employment arrangements, slightly higher among males (36.29%) than females (32.93%). This reflects a relatively balanced level of job stability between genders, with females holding a slight edge in permanent employment.

In terms of the nature of work, both male and female graduates are predominantly in ICTrelated roles, with 32.26% of males and 29.88% of females working in this field. Additionally, there is diversity in other fields, such as business and finance, where a higher percentage of females (19.51%) are employed compared to males (15.32%). In government services, more males (20.97%) are employed compared to females (14.63%).

These findings suggest that while ICT remains a common career path, BSIT graduates are also branching out into other sectors, with gender-specific variations in fields like business, finance, and government services.

The study shows the employment profile of employed BSIT graduates, analyzed by civil status, highlights differences between single and married individuals across work affiliation, employment type, and nature of work. In terms of work affiliation, a majority of both single (76.14%) and married (79.17%) graduates are employed in the private sector, with government employment slightly more common among single graduates (23.86%) than married ones (20.83%). This suggests that private sector jobs are prevalent among BSIT graduates, regardless of marital status.

Examining employment type reveals that married graduates have a higher proportion of permanent employment, with 75.00% holding stable positions compared to 58.71% of single graduates. None of the married graduates are in casual employment, while 6.06% of single graduates are. Additionally, 35.23% of single graduates are in other types of employment, compared to 25.00% of married graduates. This suggests that married graduates are more likely to secure permanent roles, potentially indicating a preference for or access to more stable employment.

Regarding the nature of work, ICT is the dominant field for both groups, with 41.67% of married graduates and 29.92% of single graduates working in ICT-related roles. Other fields show varying levels of employment, with single graduates distributed across government services (17.80%), business & finance (18.56%), and other sectors (18.18%). Married graduates, on the other hand, show a concentration in ICT but also have representation in construction & manufacturing, education, and government services (each at 12.50%). This distribution indicates that while ICT remains a core field for BSIT graduates, married individuals have a slightly higher concentration in ICT, possibly reflecting a preference or greater access to these roles.

**Significant Association Between the Gender and the Employment Profile**

*Table 1. Contingency Chi-Square on Gender and Employment Status*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Employment Status  |    | GenderMale  |  Female  |  Total  |
| Employed  | Count  | 124.000  | 164.000  | 288.000  |
|    | Expected count   | 115.364   | 172.636   | 288.000   |
| Unemployed  | Count  | 17.000  | 47.000  | 64.000  |
|   | Expected count  | 25.636  | 38.364  | 64.000  |
|  Total  |  Count  |  141.000  |  211.000  |  352.000  |
|   | Expected count  | 141.000  | 211.000  | 352.000  |

Table 1 presents the contingency table to examine the association between gender and employment status among BSIT graduates, using both observed counts and expected counts for employed and unemployed individuals by gender. Among male graduates, 124 were employed, compared to an expected count of 115.364, while 17 were unemployed, with an expected count of 25.636. For female graduates, 164 were employed (slightly below the expected count of 172.636), and 47 were unemployed (above the expected count of 38.364).

The chi-squared test result, with a value of 5.932 at 1 degree of freedom and a p-value of 0.015, indicates that the association between gender and employment status is statistically significant at a 5% level. This suggests that gender is significantly associated with employment status, with males more likely to be employed than females among the BSIT graduates. While this association is statistically significant, the Phi-coefficient value of 0.130 suggests a relatively weak association between gender and employment status. This implies that while gender does play a role in employment status for these graduates, other factors may also be influencing employability.

*Table 2. Contingency Chi-Square on Civil Status and Employment Status*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Employment Status  |    | Civil StatusSingle  |  Married  |  Total  |
| Employed  | Count  | 264.000  | 24.000  | 288.000  |
|    | Expected count   | 265.909   | 22.909   | 288.000   |
| Unemployed  | Count  | 61.000  | 3.000  | 64.000  |
|   | Expected count  | 59.091  | 4.909  | 64.000  |
|  Total  |  Count  |  325.000  |  27.000  |  352.000  |
|   | Expected count  | 325.000  | 27.000  | 352.000  |

Table 2 presents the actual and expected counts to determine the association between civil status (single or married) and employment status among BSIT graduates. Among single graduates, 264 were employed, which is close to the expected count of 265.909, and 61 were unemployed, which is also close to the expected count of 59.091. For married graduates, 24 were employed (slightly above the expected count of 22.909), and 3 were unemployed (slightly below the expected count of 4.909). This distribution suggests minimal deviation between observed and expected counts, indicating a weak relationship between civil status and employment status.

The chi-squared test result, with a value of 0.982 at 1 degree of freedom and a p-value of 0.322, indicates that the association between civil status and employment status is not statistically significant. This suggests that civil status does not significantly impact the employment status of BSIT graduates in this sample. The nominal measures, Phi-coefficient and Cramer’s V, both have low values (0.053), further supporting the weak association between civil status and employment status. In conclusion, civil status appears to have little to no effect on the likelihood of employment for BSIT graduates, implying that other factors may play a more prominent role in determining their employability.

**Association between Gender and Employment Profile**

Among male graduates, 37 work in government roles, which is above the expected count of 29.278, while 87 work in private roles, slightly below the expected count of 94.722. Conversely, among female graduates, 31 work in government (below the expected 38.722), and 133 work in private roles, above the expected count of 125.278. This distribution suggests that male graduates are more likely to work in government roles than expected, while female graduates are more likely to work in the private sector.

The chi-squared test result, with a value of 4.682 at 1 degree of freedom and a p-value of 0.030, indicates that the association between gender and work affiliation is statistically significant at the 5% level. This suggests that gender is significantly associated with the type of work affiliation among BSIT graduates, with males more likely to be affiliated with government roles than females.

The Phi-coefficient and Cramer’s V values, both at 0.128, indicate a weak association between gender and work affiliation. While this association is statistically significant, the strength of the relationship is modest, implying that although gender plays a role in determining work affiliation, other factors are likely influencing the choice or availability of government versus private sector employment for BSIT graduates.

The observed counts show that among male graduates, 73 held permanent positions, 6 were in casual roles, and 45 were in other types of employment. For female graduates, 100 held permanent positions, 10 were in casual roles, and 54 were in other types of employment. These observed counts are close to the expected counts, indicating minimal deviation between male and female graduates in terms of employment type.

The chi-squared test result, with a value of 0.486 at 2 degrees of freedom and a p-value of 0.784, indicates that the association between gender and employment type is not statistically significant. This means that gender does not have a significant impact on whether BSIT graduates hold permanent, casual, or other types of employment.

Cramer’s V value of 0.041 also indicates a very weak association between gender and employment type. This further supports the conclusion that gender does not play a meaningful role in determining the employment type for BSIT graduates, suggesting that employment type distribution is relatively similar between male and female graduates.

The observed counts show that a slightly higher number of male graduates were employed in ICT (40) and Government Services (26), while female graduates were more represented in fields like Business & Finance (32) and Other (33). However, the observed and expected counts are fairly close across all categories, suggesting no significant deviation in the distribution of work types by gender.

The chi-squared test yields a value of 4.436 with 5 degrees of freedom and a p-value of 0.488. This high p-value indicates that the association between gender and nature of work is not statistically significant. In other words, gender does not have a notable impact on the type of industry in which BSIT graduates are employed.

Cramer’s V value of 0.020 further suggests a very weak association between gender and nature of work, reinforcing the conclusion that there is no meaningful relationship between these variables. Thus, the data indicates that both male and female graduates are similarly distributed across various fields of employment, and gender does not appear to influence the nature of work for BSIT graduates.

**Association Between the Civil Status and Employment Profile**

(only between civil status and affiliation)

The observed data shows that most single graduates were affiliated with private sector jobs (201), while the married graduates also predominantly work in the private sector (19). Government employment was less common for both groups, with 63 single and 5 married graduates working in government roles. The observed and expected counts are closely aligned, indicating little deviation from what would be expected if civil status had no impact on work affiliation.

The chi-squared test yields a value of 0.112 with 1 degree of freedom and a p-value of 0.738, suggesting that the association between civil status and work affiliation is not statistically significant. This high p-value indicates that civil status (whether single or married) does not significantly affect whether BSIT graduates work in government or private sectors.

The Phi-coefficient and Cramer’s V values, both at 0.020, further confirm a very weak association between civil status and work affiliation. These results suggest that civil status does not play a meaningful role in determining whether BSIT graduates are employed in government or private sectors.

4. Conclusion

The study examined the employment profile of BSIT graduates, focusing on factors such as employment status, gender, civil status, work affiliation, and type and nature of employment. Results showed that most graduates were employed, with higher rates among males, primarily in the private sector and ICT-related roles. Gender showed a slight link to employment outcomes, with men having marginally better results and higher government affiliation, while civil status had no significant effect. Permanent positions were the most common, though many graduates still held temporary roles, suggesting a need for more stable employment opportunities.

Overall, BSIT graduates displayed favorable employment outcomes, with most working in their field and across various industries such as government, finance, business, and education. While gender had a limited impact and civil status was largely irrelevant, the findings highlight the importance of promoting gender parity and expanding access to long-term, stable positions. The results affirm that the BSIT program effectively equips graduates for diverse professional paths, especially in ICT.

Consent (where ever applicable)

All respondents received comprehensive information about the study's goals, parameters, and methods prior to their involvement. Every participant gave their informed consent prior to the start of data collection, and participation was completely voluntary. Respondents received guarantees that their answers and personal data would be kept completely private, used exclusively for scholarly and research reasons, and reported only in aggregated form to avoid identifying specific people. Additionally, they were made aware of their freedom to leave the study at any time without incurring penalties or losing any advantages.

Ethical approval (where ever applicable)

This study did not require formal ethics review as it involved minimal risk and all participants were aged 20 years and above. Nevertheless, the research was conducted in accordance with recognized ethical standards, ensuring voluntary participation, informed consent, and the confidentiality of all responses. Participants were informed of the study’s purpose, assured of their right to withdraw at any time, and guaranteed that their data would be used solely for academic purposes.

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