

## Determinants of BSIT Major Program Choice among First-Year Information Technology Students

Sherilyn P. Tobias<sup>1\*</sup>, Romeo P. Evangelista<sup>2</sup>, Michael R. Lacar<sup>3</sup>

<sup>1</sup> College of Information Technology Education, Nueva Vizcaya State University, Bayombong, Nueva Vizcaya

**Corresponding Author:** Sherilyn P. Tobias [sheptobias@nvsu.edu.ph](mailto:sheptobias@nvsu.edu.ph)

---

### ARTICLE INFO

*Keywords:* BSIT Specialization, Career Choice, Information Technology Education, First-Year Students, Career Decision-making

*Received :* 09, May

*Revised :* 12, June

*Accepted:* 15, July

©2026 Tobias, Evangelista, Lacar :  
This is an open-access article  
distributed under the terms of the  
[Creative Commons Attribution 4.0  
International](#).



### ABSTRACT

This study examined the determinants influencing BSIT major program choice among first-year Information Technology students at Nueva Vizcaya State University. Using a quantitative descriptive-comparative design, data were collected from 62 first-year BSIT students through a validated researcher-developed questionnaire. Weighted mean, standard deviation, ranking, and independent samples *t*-test were employed for data analysis. Results revealed that the identified determinants were generally highly influential ( $M = 3.83$ ). Career and Employment Factors emerged as the strongest determinant ( $M = 4.21$ ), followed by Personal Factors ( $M = 4.02$ ), Institutional and Academic Factors ( $M = 3.73$ ), and Family and Social Factors ( $M = 3.36$ ). A significant difference was found only in Family and Social Factors ( $p = 0.010$ ) between NDM and WMAD students. The findings highlight the importance of career-oriented advising and specialization awareness programs to support informed BSIT major selection.

---

## **INTRODUCTION**

The increasing demand for professionals in the field of Information Technology (IT) has encouraged higher education institutions to continuously strengthen their academic programs to produce graduates equipped with relevant technical competencies and industry-ready skills. As digital transformation reshapes industries worldwide, Information Technology education has expanded beyond foundational computing knowledge into specialized fields such as Network Design and Management (NDM) and Web and Mobile Application Development (WMAD). These specializations provide students with distinct career pathways aligned with emerging workforce demands. Consequently, selecting an appropriate BSIT major program has become an important academic decision that may influence students' learning experiences, competency development, and future employability (Cofino et al., 2024; Betiz, 2026). Understanding the determinants of students' specialization choices is therefore essential for ensuring that academic programs effectively respond to both student aspirations and industry needs.

Students' selection of a BSIT major is influenced by multiple interrelated factors rather than personal preference alone. Previous studies have shown that personal interests, perceived abilities, parental expectations, peer influence, institutional reputation, quality of instruction, available learning resources, and anticipated career opportunities significantly shape students' academic decisions (Pelobello, 2025; Gicana et al., n.d.). Likewise, the increasing visibility of high-paying careers in software development, cybersecurity, networking, cloud computing, and mobile application development has further influenced students to evaluate specializations based on long-term employment prospects and economic benefits. Recent research also highlights that students' aspirations, expectations, and perceptions toward their chosen degree programs contribute significantly to their commitment and academic persistence (Valderama et al., 2024). These findings demonstrate that major program selection is a multidimensional decision requiring careful examination.

Despite the growing number of studies on program preference and academic performance, limited research has specifically examined the determinants influencing specialization choices among first-year BSIT students, particularly in the context of choosing between Network Design and Management and Web and Mobile Application Development. Existing studies have primarily focused on general course selection (Gicana et al., n.d.), academic achievement (Cruz et al., 2020; Olipas & Cochanco, 2021), employability outcomes (Cofino et al., 2024), or graduate tracer analyses (Baladad et al., n.d.). While these investigations provide valuable insights into Information Technology education, they offer limited evidence regarding the factors that drive students to select one BSIT specialization over another during their early years in higher education. As a result, institutions may have insufficient empirical information to guide students toward specializations that align with their interests, competencies, and career goals.

Identifying the determinants of BSIT major program choice can provide valuable evidence for curriculum planning, academic advising, student career

counseling, and enrollment management. By understanding whether students' decisions are primarily influenced by personal motivations, family and social support, institutional characteristics, or career-related considerations, academic administrators and faculty members can develop more responsive orientation programs and advising mechanisms that promote informed specialization decisions. Furthermore, determining the most influential factors and examining whether these factors differ between students enrolled in Network Design and Management and those in Web and Mobile Application Development may support evidence-based interventions aimed at improving student satisfaction, specialization alignment, and long-term academic success (Perez & Perez, 2021; Ribot et al., 2020).

In response to these concerns, this study proposes to determine the determinants of BSIT major program choice among first-year Information Technology students. Specifically, it seeks to examine the extent to which personal factors, family and social factors, academic and institutional factors, and career and economic factors influence students' specialization decisions; identify the factor with the greatest influence; and determine whether significant differences exist in these determinants between students who selected Network Design and Management and those who selected Web and Mobile Application Development. The findings of this study are expected to contribute to evidence-based academic advising, curriculum enhancement, and strategic program planning while providing empirical support for improving student specialization alignment within Bachelor of Science in Information Technology programs.

## LITERATURE REVIEW

### *Determinants of Students' Program and Major Choice in Higher Education*

Selecting an academic program is one of the most significant decisions students make before entering higher education because it directly influences their academic experiences and future careers. Numerous studies suggest that students rarely base their decisions on a single factor; instead, they consider a combination of personal interests, family expectations, institutional characteristics, and career opportunities. According to Pelobello (2025), students enrolled in technology-related degree programs reported that intrinsic motivation, perceived competencies, and future employment prospects were among the strongest determinants influencing their academic choices. Similarly, Gicana et al. (n.d.) found that senior high school students considered career aspirations, personal interests, and institutional reputation as primary considerations when selecting degree programs. These findings indicate that program selection is a multidimensional process requiring both personal reflection and external influence.

Moreover, family and social environments significantly shape students' educational decisions. Parents often influence their children's program selection through financial support, career expectations, and educational guidance, while peers and teachers provide additional motivation and encouragement. Gicana et al. (n.d.) emphasized that parental recommendations and peer opinions

frequently affect students' confidence in choosing a college program. Furthermore, Valderama et al. (2024), through sentiment analysis, revealed that freshmen's expectations regarding their chosen degree programs are strongly associated with their motivations, emotions, and perceptions before entering college. Consequently, understanding social influences is essential in explaining why students pursue particular academic specializations despite having similar academic backgrounds.

Institutional factors likewise contribute significantly to students' academic decisions. The quality of instruction, availability of laboratory facilities, curriculum relevance, accreditation status, and institutional reputation are commonly considered when selecting an academic program. Betiz (2026), in a feasibility study on offering a Bachelor of Science in Information Systems program, emphasized that institutional readiness, faculty qualifications, curriculum design, and available learning resources influence students' confidence in enrolling in computing-related disciplines. Likewise, institutions offering updated curricula aligned with current industry demands are more attractive to prospective students because they provide greater assurance of quality education and employability.

Career and economic considerations also play an increasingly important role in determining students' specialization preferences. As the Information Technology industry continues to expand globally, students have become more aware of employment opportunities, salary expectations, career stability, and technological trends associated with various IT specializations. Pelobello (2025) reported that students prioritize degree programs that offer stronger employment prospects and competitive compensation after graduation. Similarly, Betiz (2026) noted that computing-related programs remain attractive because of the increasing demand for professionals in software development, networking, cybersecurity, and information systems. Therefore, anticipated career outcomes significantly shape students' academic choices even before they formally begin their college education.

Taken together, previous studies demonstrate that students' program selection results from the interaction of personal, family, institutional, and economic factors rather than isolated influences. Although these studies have identified the major determinants affecting students' degree selection, most investigations have examined program choice at the general level instead of specialization selection within Information Technology education. Consequently, further investigation is necessary to determine how these determinants influence students' decisions when selecting specific BSIT major programs such as Network Design and Management and Web and Mobile Application Development.

### ***Information Technology Students, Academic Outcomes, and Specialization Decisions***

The academic experiences of Information Technology students are closely associated with their cognitive abilities, technological competencies, and educational preparedness. Cruz et al. (2020) found that programming performance among IT students is influenced by several academic factors,

including prior computing knowledge, learning strategies, and instructional practices. Likewise, Olipas and Cochanco (2021) reported that students' cognitive determinants significantly correlate with their academic performance in Information Technology courses. These findings suggest that students may also consider their own competencies and academic confidence when choosing a specialization that aligns with their strengths and interests.

Furthermore, technology competence and exposure to digital learning environments influence students' perceptions of various IT fields. Ingua et al. (2023) demonstrated a positive relationship between the use of educational applications and ICT competence among Information Technology students. As students become more proficient in programming tools, networking technologies, and software applications, they develop clearer preferences regarding their desired specialization. Consequently, students with stronger programming experiences may prefer software development tracks, while those interested in computer infrastructure and communication technologies may gravitate toward networking specializations.

Psychological and motivational factors also affect students' academic preferences and persistence in computing education. Olipas and Luciano (2020) found that instructional interventions designed to reduce programming anxiety significantly improved students' academic motivation. This finding implies that students' perceptions of difficulty, confidence, and learning experiences may influence not only their academic performance but also their willingness to pursue particular IT specializations. Therefore, understanding students' motivational characteristics provides additional insights into specialization decision-making.

Similarly, graduate employability studies highlight the importance of aligning academic specialization with industry competencies. Cofino et al. (2024) reported that BSIT graduates possessing relevant technical competencies exhibited higher employability and better career opportunities. Likewise, Cofino et al. (n.d.) emphasized that curriculum enhancement should continuously respond to labor market demands to improve graduates' competitiveness. These findings suggest that students may intentionally select specializations they perceive to have stronger employment potential and professional growth opportunities. Consequently, career expectations become a significant determinant of specialization choice among Information Technology students.

Finally, predictive studies in higher education demonstrate that students' academic decisions can be analyzed using educational data to support institutional planning. Perez and Perez (2021) successfully applied machine learning techniques to predict student program completion, while Ribot et al. (2020) developed predictive models for student attrition using classification algorithms. Although these studies focused on academic outcomes rather than specialization decisions, they illustrate the value of educational analytics in understanding student behavior. Therefore, examining the determinants of BSIT major program choice can provide empirical evidence that supports academic advising, specialization planning, curriculum enhancement, and strategic enrollment management in Information Technology programs.

### **Research Gaps**

Existing studies have extensively examined the factors influencing students' choice of college degree programs, academic performance, motivation, ICT competence, and graduate employability within Information Technology education (Cruz et al., 2020; Olipas & Cochanco, 2021; Pelobello, 2025; Cofino et al., 2024). Likewise, previous research has identified personal interests, family influence, institutional reputation, and career opportunities as important determinants of students' academic decisions (Gicana et al., n.d.; Valderama et al., 2024). However, these studies primarily focused on degree program selection (e.g., choosing BSIT, BSIS, or other academic programs) rather than the selection of major specializations within the Bachelor of Science in Information Technology program.

Moreover, although studies have investigated the academic preparedness, employability, and cognitive characteristics of Information Technology students, there remains limited empirical evidence comparing the factors that influence students to choose Network Design and Management (NDM) or Web and Mobile Application Development (WMAD). Most existing research has emphasized academic outcomes and graduate success instead of examining the determinants that shape specialization decisions during students' first year in college. Consequently, higher education institutions have limited evidence to support specialization advising, curriculum planning, and student career guidance.

Furthermore, previous studies have generally examined influencing factors independently and have seldom determined which determinant exerts the greatest influence on students' specialization choice or whether these determinants significantly differ between students enrolled in different BSIT major programs. Addressing these gaps is important because understanding the underlying factors that drive specialization decisions can help institutions improve student-program alignment, increase academic satisfaction, and better prepare students for industry demands.

Therefore, this study seeks to bridge these gaps by examining the determinants of BSIT major program choice among first-year Information Technology students. Specifically, it investigates the extent to which personal factors, family and social factors, academic and institutional factors, and career and economic factors influence students' selection of BSIT major programs, identifies the most influential determinant, and determines whether significant differences exist between students who selected Network Design and Management (NDM) and Web and Mobile Application Development (WMAD). The findings are expected to contribute to evidence-based academic advising, curriculum enhancement, and specialization planning in Information Technology education.

## METHODOLOGY

This study employed a quantitative descriptive-comparative research design to examine the determinants influencing the choice of BSIT major programs among first-year Information Technology students at the College of Information Technology Education, Nueva Vizcaya State University (NVSU), Bayombong Campus, during the Academic Year 2026–2027. The respondents consisted of 62 first-year BSIT students who had selected either Network Design and Management (NDM) or Web and Mobile Application Development (WMAD) as their preferred major specialization. The respondents were selected using convenience sampling, wherein students who were readily available and willing to participate during the data collection period were included in the study. Data were gathered through a researcher-developed questionnaire based on an extensive review of related literature. The instrument consisted of statements measuring the influence of personal factors, family and social factors, academic and institutional factors, and career and economic factors on students' specialization choices using a five-point Likert scale. Prior to its administration, the questionnaire underwent expert validation to establish content validity and was pilot-tested to determine its reliability using Cronbach's alpha, ensuring that the instrument was both valid and reliable for data collection.

Before conducting the survey, permission to administer the questionnaire was secured from the appropriate university authorities. Respondents were informed of the purpose of the study, and their participation was voluntary, with confidentiality and anonymity strictly maintained in accordance with the Data Privacy Act of 2012 (Republic Act No. 10173). Completed questionnaires were retrieved, checked for completeness, encoded, and analyzed using appropriate statistical tools. Specifically, weighted mean and standard deviation were utilized to determine the extent to which each factor influenced students' BSIT major program choice, while composite mean and ranking were used to identify the most influential determinant. Furthermore, an independent samples t-test was employed to determine whether a significant difference existed in the influencing factors between students who selected Network Design and Management (NDM) and those who selected Web and Mobile Application Development (WMAD). All statistical analyses were performed using a 0.05 level of significance.

## RESULTS AND DISCUSSION

Table 1. Extent of the Factors Influencing BSIT Major Program Choice Among First-Year Information Technology Students

| Determinants     | Mean | SD   | Interpretation     |
|------------------|------|------|--------------------|
| Personal Factors | 4.02 | 0.82 | Highly Influential |

| Determinants                       | Mean        | SD   | Interpretation            |
|------------------------------------|-------------|------|---------------------------|
| Family and Social Factors          | 3.36        | 0.87 | Moderately Influential    |
| Career and Employment Factors      | 4.21        | 0.65 | Very Highly Influential   |
| Institutional and Academic Factors | 3.73        | 0.84 | Highly Influential        |
| <b>Overall Mean</b>                | <b>3.83</b> |      | <b>Highly Influential</b> |

Table 1 presents the extent of the factors influencing the BSIT major program choice among first-year Information Technology students. The findings revealed that the respondents generally considered the identified determinants as Highly Influential (Overall Mean = 3.83). Among the four determinants, Career and Employment Factors obtained the highest mean ( $M = 4.21$ ,  $SD = 0.65$ ), interpreted as Very Highly Influential. This finding indicates that students primarily selected their BSIT major specialization based on employment opportunities, expected salary, career stability, and industry demand. This suggests that students are increasingly career-oriented and recognize the importance of selecting a specialization that provides competitive employment prospects in the rapidly evolving Information Technology industry.

Meanwhile, Personal Factors ranked second ( $M = 4.02$ ,  $SD = 0.82$ ), followed by Institutional and Academic Factors ( $M = 3.73$ ,  $SD = 0.84$ ), both interpreted as Highly Influential. These results imply that students also considered their interests, abilities, learning preferences, curriculum, faculty expertise, and institutional support when deciding on their specialization. On the other hand, Family and Social Factors obtained the lowest mean ( $M = 3.36$ ,  $SD = 0.87$ ) and were interpreted as Moderately Influential, indicating that although parents, relatives, peers, and friends contributed to students' decisions, these factors were less influential compared with personal aspirations and future career considerations.

The findings support the study of Pelobello (2025), who reported that career opportunities and economic benefits are among the strongest determinants influencing students' selection of technology-related degree programs. Similarly, Gicana et al. (n.d.) found that although family members and peers provide guidance during college decision-making, students ultimately prioritize personal interests and future career prospects. Furthermore, Valderama et al. (2024) emphasized that freshmen's aspirations and expectations are closely associated with their academic decisions, particularly when they perceive that their chosen specialization aligns with their long-term professional goals.



Table 2. Ranking of the Determinants Influencing BSIT Major Program Choice Among First-Year Information Technology Students

| Rank | Determinant                        | Composite Mean | Interpretation          |
|------|------------------------------------|----------------|-------------------------|
| 1    | Career and Employment Factors      | 4.21           | Very Highly Influential |
| 2    | Personal Factors                   | 4.02           | Highly Influential      |
| 3    | Institutional and Academic Factors | 3.73           | Highly Influential      |
| 4    | Family and Social Factors          | 3.36           | Moderately Influential  |

Table 2 presents the ranking of the determinants influencing BSIT major program choice among first-year Information Technology students. The findings revealed that Career and Employment Factors ranked first with the highest composite mean ( $M = 4.21$ ), indicating that students were primarily motivated by future employment opportunities, career advancement, job security, and salary expectations when selecting their specialization. This demonstrates that respondents recognized the importance of aligning their academic specialization with labor market demands and long-term professional success.

The second highest determinant was Personal Factors ( $M = 4.02$ ), suggesting that students also valued their interests, strengths, confidence, and passion in choosing between Network Design and Management and Web and Mobile Application Development. Meanwhile, Institutional and Academic Factors ranked third ( $M = 3.73$ ), indicating that curriculum content, faculty competence, and academic orientation also influenced students' decisions. Lastly, Family and Social Factors ranked fourth ( $M = 3.36$ ), implying that external influences from parents, relatives, and peers were considered but were not the primary basis of specialization choice.

These findings are consistent with Betiz (2026), who emphasized that students tend to select computing-related programs based on perceived employability, curriculum quality, and institutional readiness. Likewise, Cofino et al. (2024) concluded that students increasingly associate their academic specialization with future employability and industry competitiveness. Moreover, Pelobello (2025) found that career expectations consistently outweigh family influence when students make higher education decisions, particularly in technology-oriented disciplines where labor market demand is continuously expanding.

Table 3. Difference in the Influencing Factors Between Students Who Selected Network Design and Management (NDM) and Web and Mobile Application Development (WMAD)

| Factor                             | NDM Mean    | WMAD Mean   | t-value      | p-value      | Interpretation         |
|------------------------------------|-------------|-------------|--------------|--------------|------------------------|
| Personal Factors                   | 4.08        | 3.98        | 0.473        | 0.638        | Not Significant        |
| Family and Social Factors          | 3.65        | 3.09        | 2.648        | 0.010        | Significant            |
| Career and Employment Factors      | 4.24        | 4.19        | 0.336        | 0.738        | Not Significant        |
| Institutional and Academic Factors | 3.78        | 3.67        | 0.530        | 0.598        | Not Significant        |
| <b>Overall</b>                     | <b>3.94</b> | <b>3.73</b> | <b>1.309</b> | <b>0.196</b> | <b>Not Significant</b> |

Table 3 presents the results of the independent samples *t*-test comparing the determinants influencing students who selected Network Design and Management (NDM) and Web and Mobile Application Development (WMAD). The findings revealed that Family and Social Factors showed a statistically significant difference between the two groups ( $t = 2.648, p = 0.010$ ), leading to the rejection of the null hypothesis. Specifically, students enrolled in Network Design and Management ( $M = 3.65$ ) reported significantly greater influence from family members, relatives, peers, and other social groups than students enrolled in Web and Mobile Application Development ( $M = 3.09$ ). This finding suggests that social support and recommendations may have played a greater role in the decision-making process of NDM students.

Conversely, no statistically significant differences were found in Personal Factors ( $p = 0.638$ ), Career and Employment Factors ( $p = 0.738$ ), Institutional and Academic Factors ( $p = 0.598$ ), and the overall determinants ( $p = 0.196$ ). These results indicate that students from both BSIT specializations generally shared similar perceptions regarding the influence of personal interests, career aspirations, institutional considerations, and academic environment on their specialization choices. Therefore, regardless of whether students selected NDM or WMAD, they appeared to be motivated by comparable career goals and personal aspirations.

The findings agree with Gicana et al. (n.d.), who reported that family and peer influence varies across students depending on their educational experiences and support systems. However, the absence of significant differences in most determinants supports the observations of Valderama et al. (2024), who found that freshmen generally possess similar aspirations and expectations toward their chosen academic programs regardless of specialization. Likewise, Pelobello (2025) emphasized that career opportunities and personal interests consistently remain the dominant determinants of students' academic decisions across different technology-related programs.

## CONCLUSIONS AND RECOMMENDATIONS

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

1. First-year Information Technology students considered the identified determinants as highly influential in selecting their BSIT major specialization, indicating that their decisions were shaped by multiple personal, social, institutional, and career-related considerations.
2. Career and Employment Factors emerged as the most influential determinant, suggesting that students primarily selected their specialization based on anticipated employment opportunities, industry demand, career stability, and salary potential.
3. Personal Factors were also found to have a strong influence on students' specialization choice, demonstrating that individual interests, skills, confidence, and passion significantly contributed to their decision-making process.
4. Institutional and Academic Factors were highly influential, indicating that curriculum offerings, faculty expertise, university facilities, and program orientation played an important role in helping students choose their preferred specialization.
5. Family and Social Factors exerted the least influence among the four determinants, although they remained moderately influential, suggesting that students relied more on their personal aspirations and career goals than on external influences from family and peers.
6. There was no significant difference between students who selected Network Design and Management (NDM) and those who selected Web and Mobile Application Development (WMAD) with respect to personal, career and employment, institutional and academic factors, and the overall determinants influencing specialization choice.
7. A significant difference was observed only in Family and Social Factors, indicating that students who selected Network Design and Management were more influenced by family members, relatives, friends, and peers than those who selected Web and Mobile Application Development.
8. Overall, the findings suggest that BSIT students make specialization decisions primarily based on future career prospects and personal interests rather than external influences, highlighting the importance of providing career-oriented academic advising and comprehensive specialization orientation programs.

### *Recommendations*

Based on the findings and conclusions of the study, the following recommendations are proposed:

1. For the College of Information Technology Education, strengthen career orientation and specialization seminars by providing comprehensive information on the curriculum, competencies, industry certifications, and career opportunities of both Network Design and Management (NDM) and Web and Mobile Application Development (WMAD) to help students make informed specialization decisions.

2. For academic advisers and faculty members, implement structured academic advising and career counseling programs that assess students' interests, skills, and career aspirations before they select their BSIT major specialization.
3. For the University Admission and Guidance Office, integrate career assessment results, aptitude tests, and program orientation activities during the admission process to ensure better alignment between students' competencies and their preferred BSIT specialization.
4. For curriculum planners and program administrators, continuously review and update the NDM and WMAD curricula to ensure alignment with current industry trends, emerging technologies, and labor market demands, thereby strengthening students' confidence in their chosen specialization.
5. For students, actively participate in specialization orientation programs, seek guidance from faculty members and industry practitioners, and evaluate their interests, strengths, and long-term career goals before deciding on a BSIT major specialization.
6. For parents and families, provide guidance and encouragement while allowing students to make specialization decisions that align with their interests, abilities, and career aspirations rather than relying solely on external expectations.
7. For future researchers, replicate the study using a larger and more diverse sample from different higher education institutions and investigate additional variables such as NCAT performance, academic achievement, awareness of BSIT specializations, technology self-efficacy, and employability expectations to further explain students' specialization choices.

## **FURTHER STUDY**

Based on the findings of the study, the following recommendations are proposed for future research:

1. Conduct a similar study involving a larger sample size from multiple higher education institutions to improve the generalizability of the findings.
2. Compare the determinants of specialization choice among students enrolled in different computing programs such as BSIT, BS Computer Science (BSCS), and BS Information Systems (BSIS) to determine whether influencing factors differ across disciplines.
3. Investigate the relationship between students' NCAT results, academic performance, and chosen BSIT specialization to determine whether academic preparedness influences specialization decisions.
4. Examine the relationship between students' awareness of BSIT specializations and their major program choice to determine whether greater awareness leads to better specialization alignment.
5. Conduct qualitative studies using interviews or focus group discussions to gain deeper insights into students' motivations, experiences, and decision-making processes when selecting their BSIT major.

6. Develop and evaluate an enhanced career guidance and specialization orientation program to determine its effectiveness in improving students' awareness and specialization decisions before enrollment.
7. Explore the long-term effects of specialization choice on academic achievement, student satisfaction, retention, internship performance, and graduate employability.
8. Investigate additional determinants not covered in this study, such as technology self-efficacy, digital literacy, socioeconomic status, personality traits, parental educational background, and labor market perceptions, to develop a more comprehensive model of BSIT specialization choice.

## ACKNOWLEDGMENT

The researchers express their sincere appreciation to all who contributed to the completion of this study. They are grateful for the guidance, support, and cooperation received, as well as to the participants for their involvement. Appreciation is also extended to the tools and resources utilized, and to family and friends for their continued encouragement and support. The researchers would also like to extend their appreciation to the use of AI tools, which included GPT-5, Gemini, and Copilot, that were used to generate ideas and formulate the statement indicators.

## REFERENCES

- Acuna, K. A. (2025). Analyzing the Influence of First-Year Students in the Bachelor of Science in Information Technology.
- Baladad, M. M. E. B., Javarro, M. C. E., Mendez, M. J., Nabanalan, M. G., Orozco, M. I. R., Pagdilao, M. M., ... & Vera, M. J. GRADUATE TRACER STUDY OF LORMA COLLEGES BATCH 2016 to 2021.
- Betiz, J. B. (2026). Offering Bachelor of Science in Information Systems (BSIS) in Bicol College, Daraga, Albay: A Feasibility Study. *International Journal of Research and Scientific Innovation*, 13(01), 1719-1727.
- Cofino, C. L., Escorial, R. B., Enquilino, D. L. B., & Alijado Jr, B. G. Employability and Psychological Study of the BSIT Graduates of CPSU–Main Campus: Basis for Curriculum Enhancement.
- Cofino, C. L., Tee, S. M. R., Enquilino, D. L. B., Alegre, G. E., Alpas, C. G., Lacson, L. K. C., ... & Abarillo, A. A. (2024). Engaging BSIT Graduates: A Study on Employability of the Bachelor of Science in Information Technology (BSIT) of Central Philippines State University-Main Campus. *Library of Progress-Library Science, Information Technology & Computer*, 44(3).
- Cruz, R. Z. D., Dimaculangan, M. A., Ogalesco, J. P. M., & Tan, J. R. C. (2020). Proposed Enhancements of Factors that Relate to Student Performance in Basic Computer Programming Course in a Local University in the Philippines. *International Journal of Social Sciences & Educational Studies*, 7(4), 80-102.
- Gicana, C. A. F., Laureto, M. A., Ogares, J. J., De Pablo, J., Dariagan, A. B. A., Protacio, J. V., & Dumapig, M. D. Course Preference of Senior High School Students in the 1st District of Capiz: Input to Program Reviews among Heis.

- Ingua, R., Bedico, A., Mariquez, J., Sanchez, F. N., Lamique, J. R., & Juanite, A. (2023). Correlational Analysis of the Use of Educational Applications and ICT Competence Among Information Technology Students in Davao City. *Available at SSRN 5042098*.
- Olipas, C. N. P., & Luciano, R. G. (2020). Understanding the Impact of Using Countdown Timer on the Academic Motivation and Computer Programming Anxiety of IT Students: The Case of a State University in the Philippines. *Online Submission*, 9(3), 235-240.
- Olipas, C. N. P., & Cochanco, R. A. G. (2021). The Information Technology Students' Cognitive Determinants and Its Relationship to Academic Performance. *Online Submission*, 8(3), 381-389.
- Pelobello, R. J. F. (2025). Factors Affecting Student Choice and Academic Performance in Taking Bachelor of Industrial Technology Program. *International Journal of Research and Scientific Innovation (IJRSI)*, 12(9).
- Perez, J. G., & Perez, E. S. (2021). Predicting student program completion using Naïve Bayes classification algorithm. *International Journal of Modern Education and Computer Science*, 12(3), 57.
- Ribot, R. R., Ribot, V. M., Perez, J. G., & Cayabyab, G. T. (2020). A Prediction Model for Student Attrition Using J48 Classification. *Int. J. Res. Appl. Sci. Eng. Technol. (IJRASET)*, 8, 329-337.
- Torres, R. A. G., & Olipas, C. N. P. (2024). Analyzing Student Academic Performance and Cybersecurity Awareness Levels: Basis for Enhancing Instruction.
- Valderama, A. M. C., Ortiz, A. H., Fabe, R. D., Ramos, R. F., Happonen, A., & Garcia, M. B. (2024, November). Unpacking Freshmen Aspirations and Expectations in Their Enrolled College Degree Programs: A Sentiment Analysis Approach. In *2024 IEEE 16th International Conference on Humanoid, Nanotechnology, Information Technology, Communication and Control, Environment, and Management (HNICEM)* (pp. 1-6). IEEE.