

The Upshot of Bachelor of Science in Industrial Technology (BSIT) Graduates' Acquired Competencies Aligned to Employment Opportunities

John Michael D. Aquino

Laguna State Polytechnic University

Johnmichael.aquino@lspu.edu.ph

Rowena A. Naga

rowena.naga@lspu.edu.ph

Erwin A. Napiza

erwin033176@gmail.com

ABSTRACT

In today's global economy, competencies and skills are highly valued in employment opportunities. This research examines the employment profile, skills acquired in college, and the challenges of Industrial Technology graduates concerning job opportunities and their ability to successfully transition from college to employment. This study utilized concurrent triangulation research design. The respondents were chosen randomly for survey questionnaire and purposively for the interview. The results revealed that all majors have more single respondents than married respondents. The gender distribution of graduates varies according to their major, with some majors having a male- or female-dominated cohort. Additionally, the number of graduates varies from year to year across all majors, with some years having more or fewer graduates. Meanwhile, many students are also greatly motivated by a personal interest in the topic, highlighting the value of curiosity and passion in choosing a vocation. The graduates have varying work situations which clarifies the characteristics of the labor market and the outlook for employment across a range of fields of specialization. All majors agree that salaries and benefits are the main factors influencing employment decisions while career challenge ranks as the second most frequently cited factor. Furthermore, the variability in job opportunities, the impact of specialization, the relevance of education to employment, the role of transferable skills, and employment adjustments to market dynamics are some of the key themes that the challenges faced by graduates

concerning job opportunities and their successful transition from college to employment encompass.

Keywords: Industrial Technology Graduates; tracer study; employment opportunities; course competencies

INTRODUCTION

Today's global marketplaces a premium on skills and competencies. Agencies seeking technologists, technicians, and engineers have highlighted the importance of these skills and competencies to assess the relevance and applicability of the skills and competences obtained by industrial technology graduates, as well as the amount to which they are utilized in their current positions (Gajdzik & Wolniak, 2022; Horwitz, 2013). Professional skills have also become increasingly important for both graduates and employers, and many companies now require technicians and technologists to have obtained the theoretical knowledge, abilities, skills, and competences necessary for their professional positions (Saniuk et al., 2021). Industrial technology graduates are expected to possess a range of knowledge and skills in a variety of subject areas including mathematics, engineering, and computer science. As such, they are expected to be able to solve complex industrial problems and be able to develop innovative solutions for industrial applications (Persaud, 2021).

Consequently, young people often lack the knowledge and expertise required for attaining suitable jobs, making it difficult for employers to hire them (Patel, 2018). This difficulty is further evidenced by the results of the Philippine Statistics Authority's Labor Force survey from July 2018, which showed that there were 1.040 million unemployed individuals aged 15 to 24 due to a lack of correspondence between the demand for and supply of labor, as well as the formal economy's limited capability to absorb them (Gequinto & Mads, 2019).

In the 21st century, education has become increasingly globalized and internationalized, and technology advancements have led to the development of new theories, constructs, and insights that can help students and teachers to further develop and enhance their knowledge, skills, and attitudes (Boholano, 2017). Similarly, as Philippine Daily Inquirer stated in 2016 that such Trade Union Congress here in the Philippines anticipated that approximately 1.2 million graduates might have trouble finding employment due to a disparity between their abilities and those demanded by the market. These labor-education mismatches were identified as market inefficiency and resource waste (Uy, 2016). Despite a competitive labor as well as education market, graduates may find themselves unsuited and underpaid, especially early in their careers while they build transferrable experiences and skills that could allow them to later re-orient themselves toward more suitable employment (Gequinto & Mads, 2019).

Conversely, Jackson (2020) affirmed that there are a variety of obstacles to the employment of recent college graduates, including a mismatch among both educational qualifications and those that are demand by employers, an excess supply of graduates in only certain disciplines and/or a shortage of job opportunities throughout their area of specialization, entrance positions paying lower salaries compared to what the graduates are anticipating, a shortage of communication abilities and competencies among ordinary college graduates, and a lack of awareness among graduates.

Furthermore, as per Ernesto Pernia, secretary of socioeconomic planning, both the quality and amount of work must be managed in order to expand employment prospects. He claimed that frictional unemployment is a result of inadequate education curriculum, unrealistic requirements by specific companies, inadequate job-seeker skills, and a lack of employment assistance (Gequinto & Mads, 2019). Universities must do more to improve graduates' transferrable skills, critical and analytical reasoning, communication, teamwork, and systemic thinking in order to boost their employment prospects. ABS-CBN, one of the biggest tv stations in the Philippines, prominently published this.

Moreover, the College of Industrial Technology (CIT) at the university has offered academic undergraduate programs, the Bachelor of Science in Industrial Technology (BSIT) with 6 majors; Automotive Technology (AT), Electrical Technology (ELT), Electronics Technology (ELX), Architectural Drafting Technology (AD), Food and Beverage Preparation and Service Management Technology (FBPSM), and Heating, Ventilating, Air Conditioning and Refrigeration Technology (HVACR). Through this curriculum, the department and university have created many professionals in these subjects, as well as alumni who have excelled in their respective fields.

With these, the researchers were encouraged to determine the extent to which the acquired skills and competencies of the graduates were being used in their current work or jobs. The research focuses on the competencies and employability of BS Industrial Technology graduates by examining their academic background and skills acquired. The research also looked at the challenges faced by the graduates in terms of job opportunities and their ability to successfully transition from college to employment. This research's findings could be used to enhance the curriculum guide, learning strategies and program, along with the abilities, and competencies. This would allow the institution to determine the relevance of their educational curriculum and program towards the requirements and standards of various industries and other technical training institutes.

The purpose of this research is to address the current need for research on the upshot of BSIT graduates' acquired competencies aligned to employment. Likewise,

this development to the program is anchored to the university's Vision and Mission which is the center of all operations (Aquino & Rivano, 2022). Additionally, there is a growing demand for BSIT graduates in various industries, as their skills are becoming increasingly valuable and in-demand. With the growing complexity of technology, employers are seeking more highly-trained and specialized employees who can take on a leadership role. This research seeks to examine the effect of graduates' acquired competencies on their ability to be employed in technology-related positions.

Theoretical Framework

This study primarily anchored on the human capital theory. The human capital theory of Becker posits that workers increase their productivity by investing in themselves through education and gaining knowledge and skills, which in turn can lead to higher wages and better job opportunities (Marginson, 2019). Thus, the study focused on how industrial technology graduates' investments in their skills can lead to better employment opportunities and higher wages. Moreover, the study also focused on the alignment of graduates' competencies with the requirements of the job market to understand the upshot of their acquired competencies. The findings of this study provide valuable insight into the job prospects of industrial technology graduates and the alignment of their skills with the job market.

RESEARCH OBJECTIVES

The primary objective of this research is to examine the competencies and employability of BS Industrial Technology graduates one State University in the Philippines. Specifically, the research will focus on:

1. Assessing the employment profile of BSIT graduates.
2. Determining the skills acquired in college of BSIT graduates.
3. Identifying the challenges faced by BSIT graduates in terms of job opportunities and their ability to successfully transition from college to employment.

METHODOLOGY

Research Design

The researchers used a concurrent triangulation research design to explore the employment profile, competencies acquired by BS Industrial Technology graduates and the challenges experience concerning employment opportunities.

Respondents

Random sampling is a method of selecting a sample of items from a population of items for the purpose of conducting research (Etikan & Bala,

2017). In this case, random sampling is being used to select graduates of BSIT from the academic years 2016 to 2020 and the list came from the University Registrar's office. These graduates were invited to participate in a survey administered via Google Form and some of them were interviewed. By using random sampling, researchers can obtain a sample that is representative of the entire population, ensuring the results of the survey are reliable. On the other hand, the participant from the interview was chosen purposively based on relevant criteria.

Instrumentation

To gather data for their tracer study, the researchers used a survey questionnaire from the Commission on Higher Education (CHED Graduate Tracer Study, 2017) and the participating State University Standard Questionnaire. The Standard Questionnaire for Alumni, which assisted in determining the career status of the graduates in the workplace, was also used with approval from CHED and the alumni office. The researchers sought the aid of current students as well as their former professors and instructors to distribute the questionnaire.

Moreover, this study also used interview guide to answer the challenges faced by BSIT graduates in terms of job opportunities and their competence in smoothly making the transition from college to job. This interview guide underwent three field experts used for validation to make sure that the survey is measuring what it is supposed to measure. The experts reviewed the tool and provided input on whether or not the questions are effective in capturing the intended information. This process helps ensure that the survey is valid and reliable.

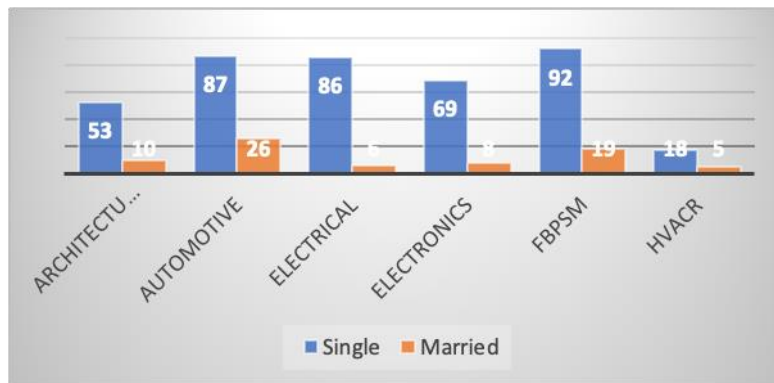
Data Collection and Analysis

The instruments were distributed by seeking the help of students currently enrolled as well as by their former instructors and professors. After administering the questionnaire to the respondents, all the data will be gathered, analyzed and interpreted with strict confidentiality. The analysis was conducted using descriptive statistics and presented using graphs. Additionally, thematic analysis was used in analyzing the data from the interview. This research can provide valuable insight into the skills and competencies that are most desirable in the current job market, as well as the competencies that can help graduates to achieve success in their chosen fields.

FINDINGS AND DISCUSSIONS

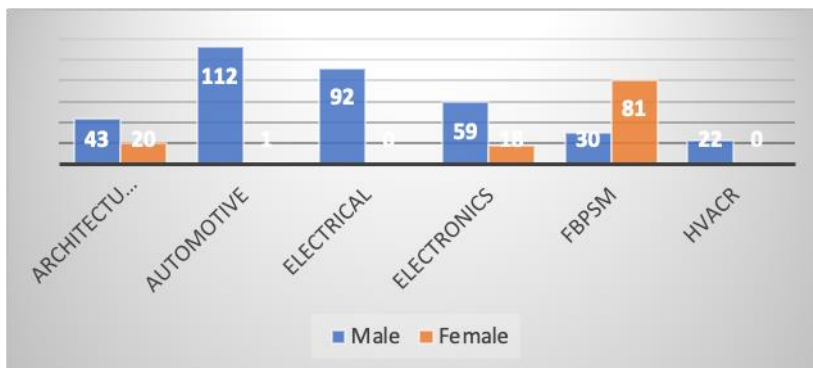
This section delves into a comprehensive analysis of the respondents' profile in their employment, competencies acquired by the graduate students during their tenure in college, and the challenges in particular to job opportunities and the transition from college life to their job.

Figure 1. Civil Status of BSIT Graduates



The data in figure 1 shows the proportions of respondents in single and married statuses in six different majors taken during college including Architectural Drafting, Automotive, Electrical, Electronics, FBPSM, and HVACR Technology. The overall distribution of civil status consists of 405 respondents as single and 75 were married. All majors where there are a few married respondents, most people in every major are single. Likewise, the distribution of married status can differ greatly amongst jobs, which may be caused by elements like employment security, working hours, or the age demographics of each industry.

Figure 2. Gender at Birth of BSIT Graduates



In the information supplied in Figure 2, graduates of BSIT programs in six different majors are distributed according to their gender at birth with a total of 358 male

graduates and 120 female graduates. All the HVACR graduates are male from the year 2016 to 2020. In Architectural Drafting, Automotive, Electrical and Electronics, majority of the graduates were male and few were female. Meanwhile, FBPSM are having notable number of female graduates compared to male graduates.

Figure 3. BSIT Year Graduated

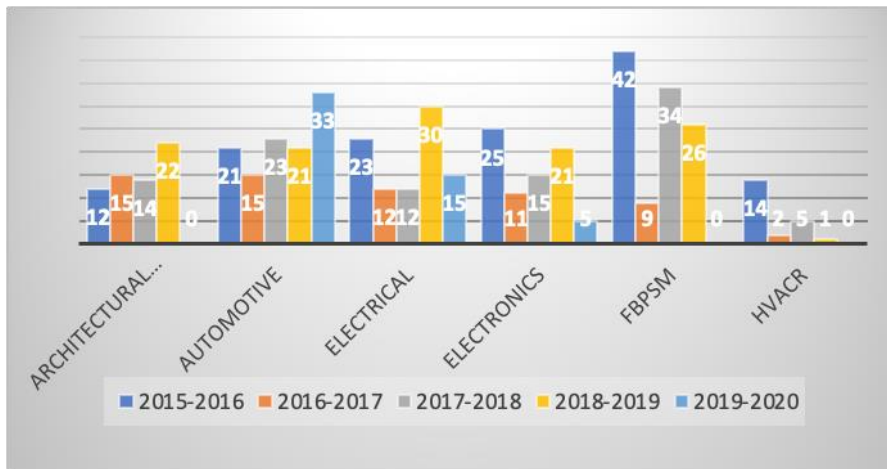


Figure 3 reveals the years graduated from the 5 consecutive years for six distinct fields or programs of study for various academic years. The number of graduates varies from year to year across all areas. In the most recent academic year (2019–2020), there were no graduates in the Architectural Drafting program, which may be the impact of having K to 12 programs in the Philippines. Meanwhile, through the years, the number of graduates in the automotive industry was largely constant and the graduation rates varied for Electrical, Electronics, and FBPSM. Additionally, factors including curriculum acclaim, retention of students, program quality, and demand in the job market can all have an impact on graduation rates.

Moreover, the information offers perceptions into the graduation patterns of BSIT students during a five-year period in several fields of expertise. This data can be used by institutions to make strategic program decisions, and by policymakers to determine how external variables like the COVID-19 pandemic affect graduation rates.

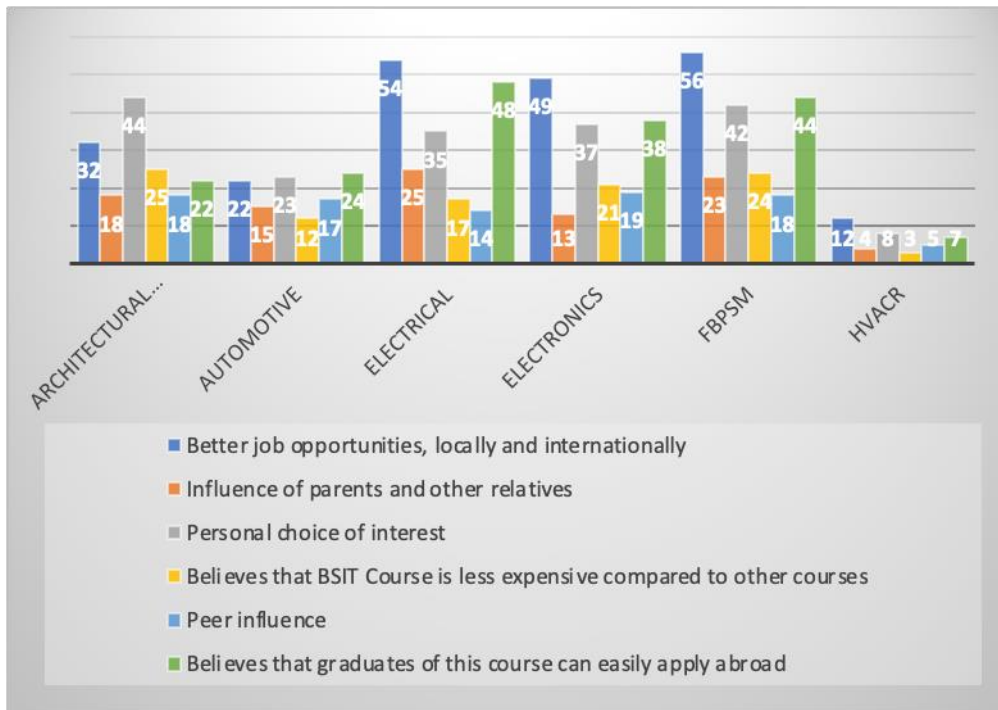
Figure 4. Reasons of BSIT Graduates in Pursuing BSIT Degree

Figure 4 shows how many students chose each reason for earning a degree in every field. The fact that this reason is the most frequently reported across all sectors suggests that many students choose the BSIT program because of the possibilities for employment both domestically and abroad. Additionally, the majority of students choose Electrical, Electronics, and FBPSM as their area for this reason, indicating that there are many work chances in these fields. Although students in all areas report this reason, it is less common than "Better Job Opportunities." This implies that while parental influence may be a factor, it does not constitute the main driver of BSIT degree pursuit. Likewise, The BSIT curriculum was chosen by many students in all areas because of their personal interest in the field. This emphasizes how crucial personal enthusiasm and curiosity are to the decision-making process.

Moreover, cost is cited as a deciding factor by a fair amount of students, particularly Architectural Drafting and FBPSM having the largest percentage. This implies that some students could pick the BSIT program simply because they think it's more economical than alternative options. Although some students note peer pressure, it is not the main justification for seeking a BSIT degree across any profession. Peers might have some influence, but it seems that other aspects dominate the decision-making process. Meanwhile, many students, particularly those studying electrical,

electronics, and FBPSM technology, think that having a BSIT degree qualifies them to apply for positions overseas. This suggests that students in these disciplines are highly motivated by the prospect of working abroad.

Furthermore, the data reiterates that job opportunities both domestically and abroad play a significant effect in students' selections to pursue a BSIT degree in the majority of sectors. Another important criterion, personal interest, emphasizes the significance of choosing a career that you are passionate about. Although there is parental influence, it is not as strong as individual choice or employment prospects. Peer pressure and cost factors have comparatively less of an impact on decision-making. Conversely, this information can be used by educational institutions and guidance counselors to better comprehend students' motives and adjust their advice and assistance accordingly. This also can be used by policymakers to evaluate how educational programs match students' job goals and to encourage the globalization of education to satisfy the expectations and ambitions of students.

Figure 5. Employment Status of BSIT Graduates

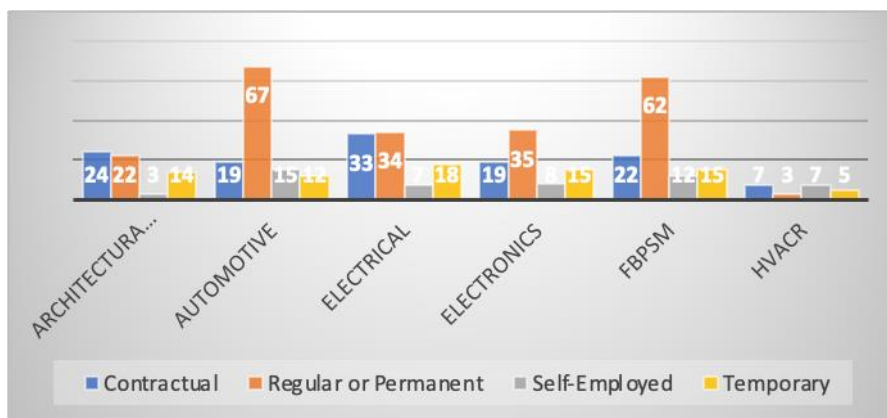


Figure 5 presents the employment status of BSIT graduates. Graduates who work on a contract or a fixed-term arrangement where in the industry with the most contract workers is Electrical (33) followed by Architectural Drafting (24) while HVACR has the least contractual employees with a total of 7. Likewise, the industry with the highest percentage of regular or permanent employees is automotive (67), indicating a reasonably steady job environment in this sector. With only three regular or permanent employees. Graduates who fall into this group have jobs that are steady or long-term. Most self-employed are from Automotive and FBPSM (15 and 12, respectively). Graduates work for themselves, frequently as freelancers or business owners. Short-term employment is frequently filled by temporary workers. HVACR has the fewest (5) temporary staff, while Electrical has the most (18).

Moreover, the figure of employment statuses can shed light on the nature of the labor market and the employment prospects in certain industries. Understanding the employment trends will enable those thinking about a career in these industries to make well-informed choices on their job security and entrepreneurial possibilities. Additionally, employers and politicians can use this information to determine the make-up of the workforce and possibly implement measures to promote job stability and independent work in these sectors.

Figure 6. Reasons for Staying the Job of BSIT Graduates

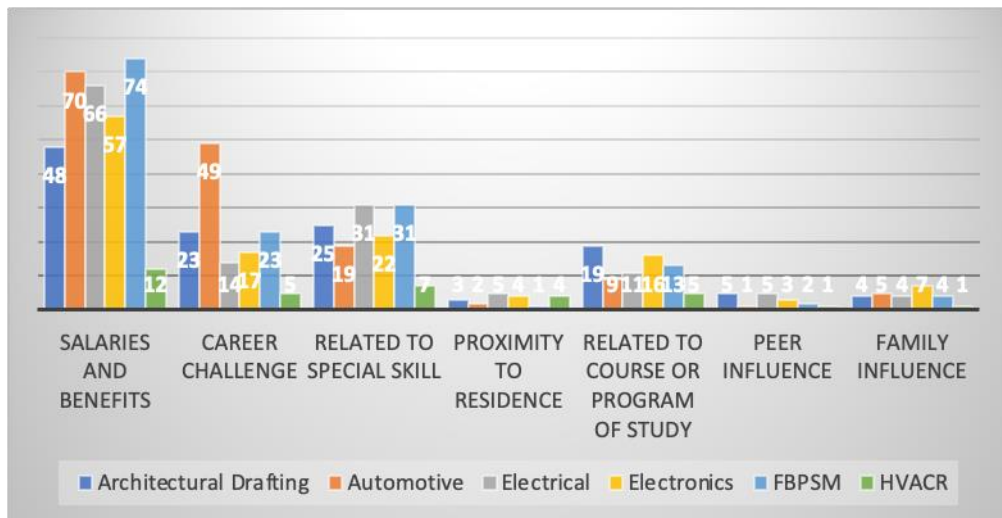


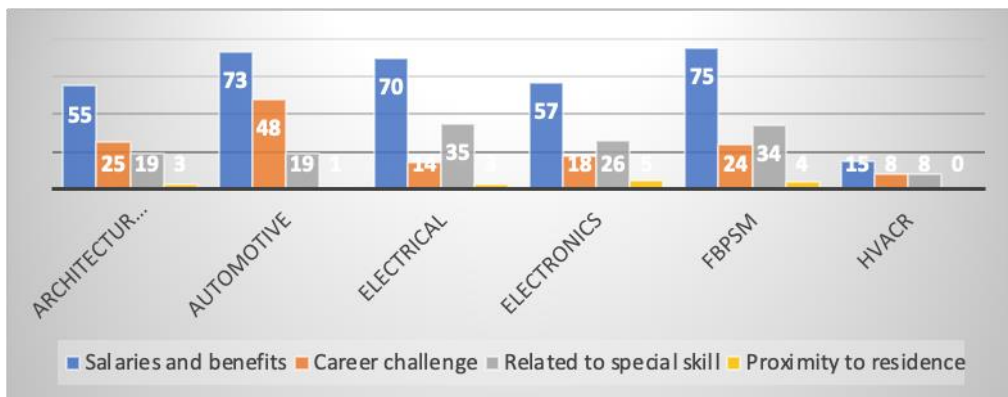
Figure 6 reiterates the reasons of BSIT graduates staying in their Job. Salaries and benefits are the primary reason for remaining in a job that is given the most often in all professions. The most graduates in FBPSM, Automotive, and Electrical, respectively, cite salaries and perks as a factor. The least number of graduates in HVACR cites this reason. The second most frequently reported reason, particularly in the fields of automotive, FBPSM, and architectural drafting, is a career challenge. Fewer graduates in the electrical and electronic professions give this reason, which would mean that these fields place a different emphasis on job satisfaction. Meanwhile, all fields indicate this rationale about special skills, with Electrical and FBPSM having the largest percentages. It implies that professionals in these disciplines value the opportunity to use their unique skills in their work.

Moreover, in all professions, proximity to home is a less frequent reason for continuing in a position. The biggest percentages are in electrical industries, which may suggest that there are more local job prospects in these sectors. Graduates from all majors have given this reason, demonstrating some correlation between educational background and career choices. Electronics and architectural drafting

have comparatively higher counts. Across all majors, peer influence and family influence are less often mentioned reasons for continuing in a position.

Furthermore, employers can utilize this information to better understand the driving forces behind employee behavior and build retention tactics that take this into account, such as providing rewarding compensation or opportunities for professional growth. Given that students appreciate the application of their knowledge to their professions, educational institutions may want to think about connecting their curricula with market demands. This data can also be used by policymakers to gauge workforce satisfaction and possibly take measures to address determinants of job satisfaction.

Figure 7. Reasons of BSIT Graduates in Accepting the Job



This figure shows the reasons of BSIT graduates for accepting the Job. In all majors, salaries and benefits are the frequent reason of accepting the job. According to the data, FBPSM (75) and the Automotive (73) have the most graduates who use this reason. This indicates that salaries and benefits are important factors in graduates' decision to pursue a career in Automotive Technology. Another frequent reason given for accepting jobs is the challenging nature of the job. Graduates in the automotive industry are more likely than the average to name a career challenge (48). This demonstrates that the potential for both personal and professional growth and development at work is a motivating factor for many graduates in the automotive industry.

A sizable number of graduates in the FBPSM and electrical fields claim that their specific skills were a factor in being hired. This suggests that they cherish the chance to use their particular knowledge and abilities in their careers. Meanwhile, no one in HVACR graduates choose the reason proximity to home for taking jobs. In the dataset, very few graduates indicate this as their main motivation. This implies that variables other than geography play a bigger influence in their decisions to take jobs.

Conversely, to recruit and keep graduates, employers in the technology industry should think about providing competitive salary packages as well as chances for skill development and career growth. The development of specialized skills that are pertinent to industry demands might be emphasized by educational institutions that provide programs in BSIT. Employers and policymakers can concentrate on aspects like pay, career advancement, and skill used to match work opportunities with the motivations of graduates in the technology field.

Figure 8. Reasons of BSIT Graduates for Changing the Job

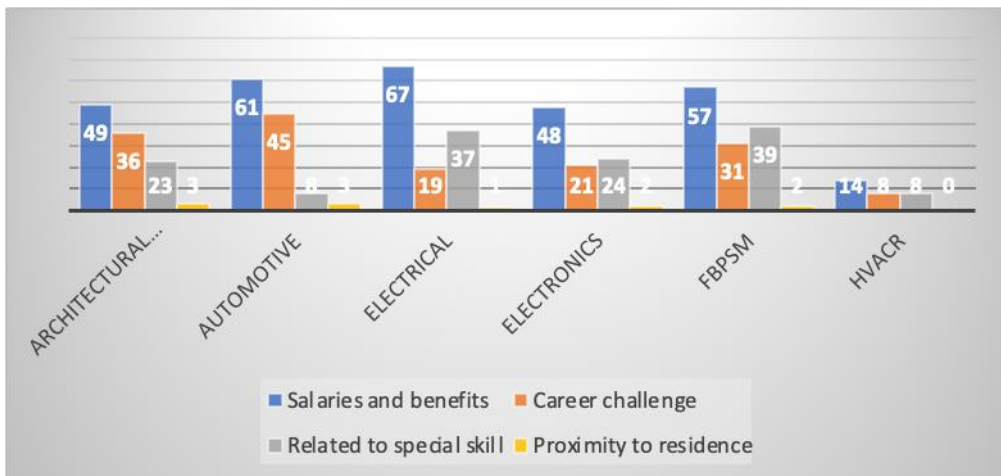


Figure 8 provides data that focuses on the reasons why BSIT graduates change their jobs. The primary reason is the salary and benefits where electrical technology most frequently mentions this reason for shifting their jobs. There are also a lot of graduates in the automotive industry (61) who mention this reason. This implies that among recent graduates in this major, discontent with salaries and benefits is a strong motivator for career moves. Likewise, career challenge reports their second most frequent reason for shifting employment among Automotive and Architectural Drafting Technology. This reiterates that recent graduates are looking for new positions with more challenges and growth prospects. Meanwhile, graduates from the fields of Electrical, Electronics, and FBPSM are more likely to say that their employment moves are connected to their particular skills. This shows that these recent graduates prioritize jobs that let them use their particular knowledge and skills. Hence, HVACR equally mentioned that career challenges and related to skills are the secondary reason why they shift their jobs. On the other hand, the least frequent justification given by graduates for changing careers is proximity to dwelling. In the dataset, very few graduates indicate this as their main motivation. This reveals that among these recent grads, geography is not a significant factor in career transfers.

Moreover, automotive graduates might be looking for jobs that offer more difficult work and chances to use their specific talents. To retain and attract employees, policymakers and businesses can concentrate on tackling issues including pay, career advancement, and skill use. The data sheds light on the better catering to the requirements and preferences of these graduates, businesses and educational institutions may help them succeed in their jobs and advance their careers.

Figure 9. Relevance of the Job to the BSIT Program

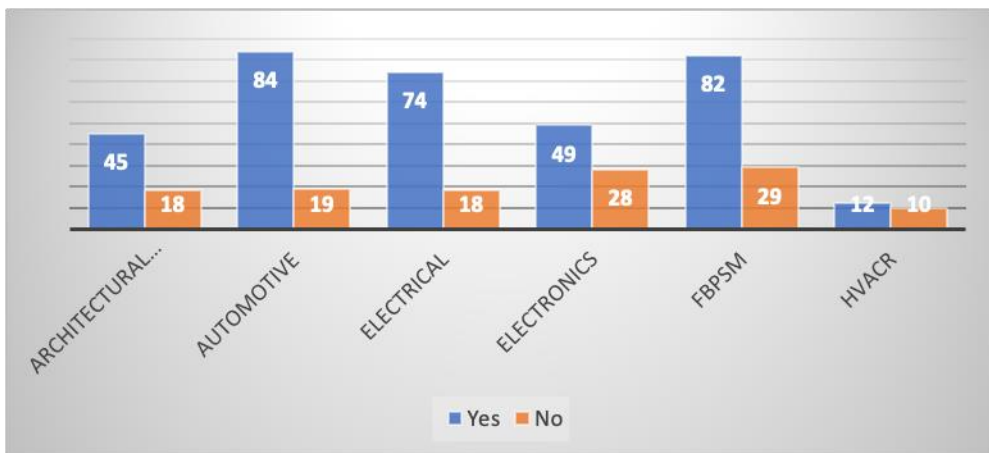


Figure 9 reveals that data perceived by the graduates in terms of relevance of their jobs to their course. The majority of those working in the automotive industry (84) responded. This implies that they are employed in jobs that correspond to their educational background. A significant proportion of people in other sectors, like Electrical (74) and FBPSM (82), also claim that their jobs are relevant to their degree of study. Even though the majority of respondents in the majority of fields indicate relevance, some people in these fields still do not think their jobs are relevant. Despite being in the same course, a sizable proportion of people (18) in the field of Architectural Drafting believe their professions are irrelevant. There are also significant numbers of people in the HVACR and electronics fields (10 and 28, respectively) who do not think their jobs are relevant.

The implications of these data to the graduates may be better able to apply their degree in their professions and may experience more job satisfaction if they find employment that is related to their field of study. There may be opportunities for people who do not perceive the relevance to improve their skill development or explore career options to match their roles with their educational backgrounds. This data can be used by employers and educational institutions to evaluate how job positions match graduates' educational backgrounds and, if appropriate, make improvements. In addition, the data sheds light on how people in different industries evaluate the relevance of occupations to the BSIT course. While many people

consider their jobs to be relevant, graduates may fail to identify a clear link between their degree and their current positions. To better match education with employment aspirations, it can be useful to understand these perspectives in order to inform curricular changes and career development methods.

Figure 10. Competencies acquired of BSIT Graduates from the College

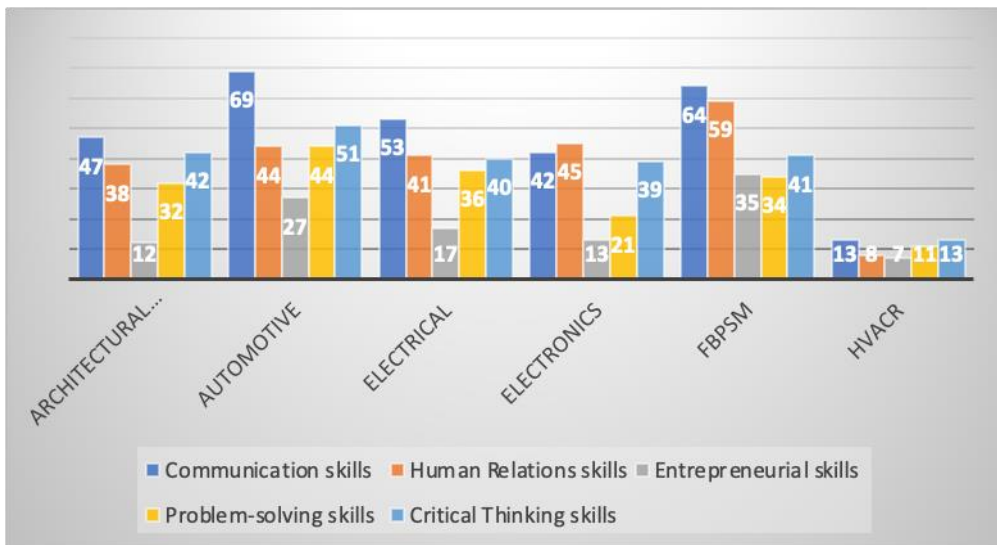


Figure 10 reveals the competencies acquired by the BSIT graduates from the college. Among all the competencies, communication skills are crucial in all professions, and many recent graduates have developed them. Graduates with strong communication skills are most prevalent in the automotive industry (69), then in Architectural Drafting (47). In this group, HVACR has the fewest graduates (13) but still has a significant number based on the list of graduates. Interpersonal communication and teamwork are key components of human relations skills, which are essential for graduates. The industry with the most graduates with interpersonal skills is FBPSM (59), followed by Electronics (45). There are comparatively fewer graduates in this category from HVACR and Architectural Drafting. Graduates from all areas are less likely to possess entrepreneurial skills, which are connected to creativity and business savvy. While other industries have lesser numbers, FBPSM has the highest number of graduates with entrepreneurial skills (35).

Meanwhile, graduates must possess problem-solving abilities in order to handle technical difficulties in their disciplines. The biggest percentages of graduates in this category are from Automotive (44), while Electronics and FBPSM have comparatively less graduates. In terms of critical thinking abilities, graduates can make better decisions with the help of critical thinking abilities, which involve analytical and evaluative thinking. BSIT graduates with strong critical thinking

abilities are most prevalent in the automotive industry (51), then in Architectural Drafting (42). In this group, HVACR has the fewest graduates (13).

Furthermore, the development of these skills is crucial for graduates' success in the workforce and their capacity to change with their careers. Certain statistics can be used by educational institutions to determine how well their program develops certain competencies and to make necessary improvements. Employers are aware that graduates from these professions possess a varied range of skills that they may use to their organizations in several different ways. In summary, the data offers insights into the skills attained by BSIT graduates in many professions. Their professional success and progress depend on these competencies. Educational institutions and companies may more effectively prepare and use these graduates in the workforce by understanding the strengths and areas for improvement in these abilities.

The Challenges Faced by BS Industrial Technology Graduates in terms of Job Opportunities and their Ability to Successfully Transition from College to Employment

Discovering challenges faced by graduates with a BS in industrial technology experience in finding work and making the transition from school to the workforce. These themes show the variety of challenges that BSIT graduates might encounter when they go from school to the workforce. To find relevant career possibilities in their field of expertise, graduates must manage an intricate combination of factors relating to their specialization, skills, educational significance, networking, and ambient economic conditions.

Variability in Job Opportunities for BSIT Graduates

There are diverse job chances available in the various industrial technology disciplines, with some having better employment prospects than others as shared by the research participants. BSIT 1 mentioned that “...*finding suitable employment opportunities for graduates may be difficult, especially if they have a specialty that is in low demand*”. Because of a complex interaction of elements that include their area of expertise, talents, geography, industry trends, and economic situations, job opportunities for BSIT graduates might vary widely. Due to increasing demand and industry expansion, some industrial technology disciplines may have higher career prospects than others (Xu et al., 2018), but graduates in other fields may need to be flexible, constantly learn new things, and actively look for opportunities to improve their employability (Johnson et al., 2016; Korhonen et al., 2022). BSIT 4 also shared that “...*graduates who want to succeed in the competitive job market should think about remaining current on industry trends, learning in-demand skills, and utilizing their networks*”.

Impact of Specialization

Industrial technology specialization choices have a big impact on employment opportunities. Graduates with specializations may encounter difficulties if there is

little demand for their specializations in the job market (Anastasiu et al., 2017). All research participants from BSIT graduates agreed that the impacts of specialization on job prospects for industrial technology graduates are significant. BSIT 2 shared that “...*I applied in one establishment, and they ask me about what course I finished and what skills do I have that I can be share in their business*”. To increase their employability, graduates must carefully examine the demand for their chosen expertise (Salendab & Sanchez, 2023), stay current on industry developments (Devi et al., 2020), constantly improve their abilities (Noah & Aziz, 2020), and make use of their professional networks (English et al., 2021). While specialization might give an advantage, it should be supported by a solid base of transferable abilities and a dedication to continuous learning to successfully traverse the dynamic job market.

Education Relevance to Employment

An important consideration is how applicable the education offered by their program is to the labor market. Graduates who sense a connection between their education and their field will generally find it more difficult to acquire job. BSIT 2 and 3 reiterated that “... *the course I finished in college is important in applying work because the relevance of course has an advantage to get and accept the job*”. Graduates are more likely to get jobs and succeed in their careers if they believe there is a close relationship between their degree and the field they have chosen (Jackson, 2017). Hardin-Ramanan et al. (2020) suggested that in order to ensure that graduates obtain education that is in line with workforce demands, educational institutions must work collaboratively with industry stakeholders. This will ultimately improve graduates' employability and achievement in the job market.

Role of Transferable Skills to BSIT Graduates

Transferable skills like communication, problem-solving, and critical thinking are crucial for graduates to have to adapt to various career prospects. Even in less competitive areas, having these talents on display might be essential for landing a job. BSIT 7 mentioned that “...*transferable skills like communication, problem-solving, and critical thinking are essential assets in the workplace*”. Along with improving their employability, these abilities give individuals the adaptability and resiliency they need to succeed in a variety of job paths. Graduates are better prepared to succeed in the challenging and competitive job market if they can successfully exhibit these talents throughout job searches, interviews, and throughout their careers (Tomlinson, 2017). In order to ensure that graduates are well-rounded and ready for the opportunities and challenges of their jobs, Salas Velasco (2014) shared that educational institutions can play a crucial role in encouraging the development of transferrable skills alongside technical knowledge.

Employment Adjustments to Market Dynamics

Graduating students must adjust to the changing job market dynamics, including shifts in industry trends and advances in technology. To remain competitive, you

may need to update your skills and learn new things constantly. Employment chances can be strongly impacted by external economic situations, such as regional employment markets and economic downturns (Markusen, 2017). BSIT 6 and 8 shared that “...*graduates may encounter difficulties and challenges when the job market is unfavorable or there is an economic crisis as particular that they are contractual*”. For those BSIT graduates, career development involves becoming adaptable to shifting employment market circumstances (Aquino & Garcia, 2023). Successful tactics for navigating a dynamic employment market include continuous learning, remaining current on industry developments, fortitude in the face of economic hardship, regional mobility, networking, and smart career planning. BSIT 4 mentioned that “...*I should better equip to fulfill my career objectives and succeed in my chosen field if I proactively adapt to market conditions and grab growth chances*”. By encouraging an adaptable mentality and offering resources for continued skill development and career planning, educational institutions may assist graduates (Clarke, 2018).

CONCLUSION

All majors have more single respondents than married respondents. The variance in married status between majors suggests that variables like job security, working hours, or the age distribution of each profession may have an impact on marital status. The gender distribution of BSIT graduates varies according on their major, with some majors having a male- or female-dominated cohort. HVACR's graduating class is entirely made up of men, whereas more men graduate from Architectural Drafting, Automotive, Electrical, and Electronics. In contrast, there are significantly more female graduates from FBPSM than male graduates. Additionally, the number of graduates varies from year to year across all majors, with some years having more or fewer graduates. Changes in the educational system, such the introduction of the K to 12 programs in the Philippines, may have had an impact on the absence of graduates in the Architectural Drafting program in the most recent academic year (2019-2020). The popularity of the curriculum, student retention, program quality, and job market demand are all attributes that might affect graduation rates. The possibility of increased work opportunities, both nationally and overseas, is the most often cited justification for getting a BSIT degree across all fields. Meanwhile, many students are also greatly motivated by a personal interest in the topic, highlighting the value of curiosity and passion in choosing a vocation. Some students' decisions are influenced by costs, especially when choosing majors like architectural drafting and FBPSM. Although it exists, parental influence does not serve as the main motivator for pursuing a BSIT degree.

Moreover, depending on the major, different BSIT graduates have varying work situations. This information clarifies the characteristics of the labor market and the outlook for employment across a range of fields of specialization. It emphasizes how critical it is to comprehend employment patterns to make wise decisions about job security and entrepreneurial potential. Employers can use this data to evaluate

the workforce composition and to think about ways to encourage self-employment and job stability in particular industries. All majors agree that salaries and benefits are the main factors influencing employment decisions. Career challenge ranks as the second most frequently cited factor. In addition, most BSIT graduates from a variety of majors believe that their professions are related to their education. Graduates who believe their jobs are related to their degree may be more satisfied with their positions and better able to use their education in their careers. Likewise, the growth of the skills is essential for graduates' employment success and flexibility in changing occupations.

Furthermore, the variability in job opportunities, the impact of specialization, the relevance of education to employment, the role of transferable skills, and employment adjustments to market dynamics are some of the key themes that the challenges faced by BSIT graduates in terms of job opportunities and their successful transition from college to employment encompass. Educational institutions, businesses, and graduates themselves can all play crucial roles in tackling these issues. Stakeholders can better prepare BSIT graduates for smooth transitions from college to employment and success in their chosen fields by encouraging the development of both technical and transferable skills, encouraging industry partnerships, and providing resources for continuous learning and career development.

Using this gathered and analyzed information, educational institutions may evaluate how successfully their curricula foster the development of these skills and make the necessary adjustments. Employers are aware that graduates from these fields have a wide range of abilities that can benefit their companies in a variety of ways. The information offers understanding into the competencies attained by BSIT graduates and the perceived relevance of occupations to these graduates' degrees. Employers can benefit from the broad skill sets of BSIT graduates by utilizing them to develop their companies, and educational institutions can better prepare graduates for the workforce by understanding the strengths and areas for improvement in these competencies.

REFERENCES

- Anastasiu, L., Anastasiu, A., Dumitran, M., Crizboi, C., Holmaghi, A., & Roman, M. N. (2017). How to align the university curricula with the market demands by developing employability skills in the civil engineering sector. *Education Sciences*, 7(3), 74. <https://doi.org/10.3390/educsci7030074>
- Aquino, J. M., & Garcia, J. (2023). Feedback on Technical, Organizational, and Customer Service Skills of Employers of the Automotive Technology Graduates of One State University in the Philippines. *Journal of Mathematics Instruction, Social Research and Opinion*, 2(2), 129-144. <https://doi.org/10.58421/misro.v2i2.87>

- Aquino, R., & Rivano, E. (2022). Awareness, Acceptance, and Understanding of University Vision, Mission, College Goals and BSIT Objectives of Laguna State Polytechnic University Stakeholders towards its VMGO. *ASEAN Journal of Education*, 8(1), 26-33. <http://aje.research.dusit.ac.th/>
- Boholano, H. (2017). Smart social networking: 21st century teaching and learning skills. *Research in Pedagogy*, 7(1), 21-29.
- CHED Graduate Tracer Study (2017). <https://www.scribd.com/document/357568637/CHED-Graduate-Tracer-Study>
- Devi, M., Annamalai, M. A. R., & Veeramuthu, S. P. (2020). Literature education and industrial revolution 4.0. *Universal Journal of Educational Research*, 8(3), 1027-1036. DOI: 10.13189/ujer.2020.080337
- English, P., de Villiers Scheepers, M. J., Fleischman, D., Burgess, J., & Crimmins, G. (2021). Developing professional networks: the missing link to graduate employability. *Education+ Training*, 63(4), 647-661. <https://doi.org/10.1108/ET-10-2020-0309>
- Etikan, I., & Bala, K. (2017). Sampling and sampling methods. *Biometrics & Biostatistics International Journal*, 5(6), 00149.
- Gajdzik, B., & Wolniak, R. (2022). Smart production workers in terms of creativity and innovation: The implication for open innovation. *Journal of Open Innovation: Technology, Market, and Complexity*, 8(2), 68. <https://doi.org/10.3390/joitmc8020068>
- Gequinto, A. C., & Mads, D. (2019). Journal of Educational Science and Technology. *Journal of Educational Science and Technology*, 5(3), 189-201. <https://doi.org/10.26858/est.v5i3.9558>
- Hardin-Ramanan, S., Gopee, S., Rowtho, V., & Charoux, O. (2020). Graduate Work-Readiness in Mauritius: A Multi-Stakeholder Approach. *Journal of Teaching and Learning for Graduate Employability*, 11(1), 93-109. <https://files.eric.ed.gov/fulltext/EJ1281822.pdf>
- Horwitz, F. M. (2013). An analysis of skills development in a transitional economy: the case of the South African labour market. *The International Journal of Human Resource Management*, 24(12), 2435-2451. <https://doi.org/10.1080/09585192.2013.781438>
- Jackson, D. (2017). Developing pre-professional identity in undergraduates through work-integrated learning. *Higher Education*, 74, 833-853. <https://doi.org/10.1007/s10734-016-0080-2>
- Jackson, D. (2020). Accounting and finance graduate employment outcomes: Underemployment, self-employment and managing diversity. *Australian Accounting Review*, 30(3), 193-205. <https://doi.org/10.1111/auar.12256>
- Johnson, L., Becker, S. A., Cummins, M., Estrada, V., Freeman, A., & Hall, C. (2016). *NMC horizon report: 2016 higher education edition* (pp. 1-50). The New Media Consortium. <https://www.learntechlib.org/p/171478/>

- Korhonen, M., Siivonen, P., Isopahkala-Bouret, U., Mutanen, H., & Komulainen, K. (2022). Young and/but successful: business graduates performing themselves as valuable labouring subjects. *Journal of Youth Studies*, 1-17. <https://doi.org/10.1080/13676261.2022.2161355>
- Marginson, S. (2019). Limitations of human capital theory. *Studies in Higher Education*, 44(2), 287-301. <https://doi.org/10.1080/03075079.2017.1359823>
- Markusen, A. (2017). Sticky places in slippery space: a typology of industrial districts. In *Economy* (pp. 177-197). Routledge.
- Noah, J. B., & Aziz, A. A. (2020). A Systematic review on soft skills development among university graduates. *EDUCATUM Journal of Social Sciences*, 6(1), 53-68. <https://doi.org/10.37134/ejoss.vol6.1.6.2020>
- Patel, D. (2018). HIRINGLAB. io: An exploration into the commercial potential of an innovative connection service that provides work experience opportunities for young adults to drive small business growth.
- Persaud, A. (2021). Key competencies for big data analytics professions: a multimethod study. *Information Technology & People*, 34(1), 178-203. <https://doi.org/10.1108/ITP-06-2019-0290>
- Salas Velasco, M. (2014). Do higher education institutions make a difference in competence development? A model of competence production at university. *Higher Education*, 68, 503-523. <https://doi.org/10.1007/s10734-014-9725-1>
- Salendab, F., & Sanchez, R. (2023). Graduates Tracer Study: The Employability Status of Bachelor of Elementary Education (BEED) of Sultan Kudarat State University–Kalamansig Campus.
- Saniuk, S., Caganova, D., & Saniuk, A. (2021). Knowledge and skills of industrial employees and managerial staff for the industry 4.0 implementation. *Mobile Networks and Applications*, 1-11. <https://doi.org/10.1007/s11036-021-01788-4>
- Tomlinson, M. (2017). Forms of graduate capital and their relationship to graduate employability. *Education+ Training*, 59(4), 338-352. <https://doi.org/10.1108/ET-05-2016-0090>
- Uy, J. R. (2016). Philippine Daily Inquirer. <https://globalnation.inquirer.net/137456/1-2m-grads-may-not-find-jobs-due-to-mismatch-between-skills-needed-training-tucp>
- Xu, L. D., Xu, E. L., & Li, L. (2018). Industry 4.0: state of the art and future trends. *International journal of production research*, 56(8), 2941-2962. <https://doi.org/10.1080/00207543.2018.1444806>