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BECOMING AN EXCELLENT GRADUATE: THE ROLE OF TECHNOLOGY AND COMMUNICATION IN IMPROVING STUDENT EMPLOYABILITY

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Abstract

This study aims to analyze the influence of technology mastery and communication skills on student work readiness at Pamulang University. In the era of digital transformation, universities are required to produce graduates who are not only academically capable but also competent in technology and communication. This research employs a quantitative approach with a descriptive associative design. The population consisted of final-semester students, with a purposive sample of 100 respondents who had participated in internships or job training programs. Data were collected through a structured questionnaire using a Likert scale and analyzed using multiple linear regression with SPSS version 26. The results showed that both technology mastery and communication skills have a positive and significant effect on work readiness, both partially and simultaneously. The t-test revealed that technology mastery contributes positively to work readiness (t = 10.159; sig. = 0.000), while communication skills have an even greater influence (t = 13.322; sig. = 0.000). The F-test also indicated a simultaneous effect (F = 105.393; sig. = 0.000). The coefficient of determination (R^2) value of 0.683 means that 68.3% of the variation in work readiness can be explained by these two variables, while the remaining 31.7% is influenced by other factors. The findings suggest that mastering technology enhances students' adaptability to digital-based work environments, while effective communication skills strengthen collaboration and professionalism. Universities should therefore integrate digital literacy and soft skills development into their curriculum to produce graduates who are not only technologically proficient but also communicatively competent and ready to face the demands of the modern workforce.

Keywords:
Technology Mastery, Communication Skills, Work Readiness, Employability, Higher Education

Introduction

In the 21st century's era of globalization, advances in information and communication technology are developing rapidly and influencing almost all aspects of life, including education and the workplace. These changes require human resources, particularly university graduates, to master technology and possess strong communication skills to be ready to compete in a dynamic workplace. At Pamulang University, student job readiness is a critical issue because it reflects the success of education in preparing competent and adaptable graduates to changing times. Job readiness is not only related to mastery of hard skills, but also soft skills such as social and emotional abilities that support productivity and collaboration in a professional environment. Two key factors contributing to improving student job readiness are mastery of information technology (X1) and communication skills (X2) (Nur'Aini & Nikmah, 2020). Mastery of technology enables students to effectively utilize digital devices to complete their work, while communication skills help build harmonious and collaborative working relationships.

Technological advances have transformed work and communication patterns in the professional world. Tech-savvy students have a greater chance of being job-ready because they are able to use technology efficiently and creatively (Oktaviana & Setyorini, 2022). Mastery of technology means not only being able to operate software, but also adapting to constantly evolving innovations. In this regard, critical thinking skills and flexibility are key to ensuring students remain on top of modern technological challenges. Furthermore, communication skills are also a crucial element of job readiness. The world of work demands effective communication, both verbally and in writing, and in various digital contexts. Good communication fosters productive teamwork, clear communication of ideas, and the creation of positive interpersonal relationships (Octaviana & Rahmaningtyas, 2025). This is crucial because most jobs today require intense interaction and coordination between individuals and across divisions.

Furthermore, the concept of digital literacy—a combination of technological mastery and communication skills in a digital context—also plays a crucial role in job readiness. Digital literacy encompasses the ability to access, evaluate, and create information critically and ethically through digital media. According to Sebelas Maret University (2024), digital literacy, along with soft skills, is a key factor in improving students' job readiness, enabling them to compete in a technology-based labor market. The phenomenon of open unemployment among university graduates indicates a persistent gap between graduate competencies and industry needs (Qurotianti, 2024). Therefore, technological mastery and communication skills need to be strengthened to increase student employability. Pamulang University, as a higher education institution, plays a strategic role in preparing students who are not only academically superior but also technologically and communicatively competent. Research on the influence of technological mastery and communication skills on Pamulang University students' job readiness is expected to provide empirical insights useful for curriculum

and training program development. Thus, the results can help universities design learning strategies relevant to the needs of the modern workforce and strengthen graduates' competitiveness in the global market.

From a theoretical perspective, the interaction between technology mastery and communication skills can be viewed as complementary. Technology mastery enhances efficiency, productivity, and adaptability to digital systems, while communication skills foster teamwork, leadership, and professional collaboration. The synergy between these two competencies fosters holistic work-readiness, where graduates are not only technically skilled but also able to engage, persuade, and contribute meaningfully in professional settings. Therefore, assessing the impact of these two variables provides important insights into how universities can strategically strengthen employability development programs in the digital age.

Finally, this research contributes to both theoretical and practical perspectives. Theoretically, it supports and extends existing employability frameworks by emphasizing the dual importance of digital and communication competencies. Practically, these findings are expected to assist educators and policymakers in designing effective learning models that integrate technology-based learning with communication skills development. As a result, universities can produce graduates who are not only work-ready but also equipped with future-oriented competencies, enabling them to thrive in a globalized, technology-driven workforce.

Theoretical Framework

In the ever-evolving digital era, technological mastery and communication skills are two key competencies that determine students' employability readiness. Employability readiness refers to the extent to which an individual possesses the knowledge, skills, and attitudes needed to enter and adapt to the workforce (Fugate, Kinicki, & Ashforth, 2004). Students with high employability generally demonstrate critical thinking skills, effective communication skills, and mastery of technology relevant to their field.

Technology mastery is an individual's ability to understand, operate, and utilize information technology devices and systems to complete work tasks (Munir, 2018). In the context of higher education, students who are accustomed to using technology tend to be more adaptable to digital changes in the workplace, such as the use of productivity software, management information systems, and online collaborative technologies (Pratama & Sari, 2020). This supports Davis's (1989) view in the Technology Acceptance Model (TAM), which states that the perceived ease and benefits of using technology will increase an individual's level of acceptance and mastery of that technology. Thus, the higher the students' technological mastery, the greater their readiness to adapt to digital-based work demands.

Meanwhile, communication skills also play a crucial role in enhancing job readiness. According to Robbins and Judge (2017), communication is the process of effectively conveying messages between individuals or groups with the goal of achieving shared understanding. In the workplace, effective communication encompasses the ability to speak, listen, write, and interpret messages professionally. Research by Rahmawati (2021) shows that students with strong interpersonal communication skills tend to be more accepted in the workplace because they are able to collaborate, negotiate, and build productive relationships. Spitzberg and Cupach's (1984) theory of interpersonal communication competence explains that communication competence consists of three aspects: knowledge, skills, and motivation, all of which contribute to a person's communication effectiveness in various situations, including the workplace.

Based on these theories, a conceptual framework can be developed that demonstrates that technological mastery and communication skills are two independent variables that simultaneously or partially influence student work readiness, the dependent variable. Students who master technology will be better prepared to face the challenges of the digital workplace, while students with strong communication skills will more easily adapt and interact in the workplace. The interaction of the two strengthens overall work readiness, as the modern workplace demands not only technical skills but also soft skills that support collaboration and productivity.

Furthermore, the Human Capital Theory (Becker, 1993) provides a strong theoretical foundation for understanding how both technological and communication skills contribute to employability readiness. According to this theory, education and skill development are forms of investment that increase an individual's productivity and value in the labor market. In this context, students who develop strong digital competencies and communication abilities are essentially increasing their human capital, making them more competitive and adaptable in various professional environments.

Finally, employability readiness is also closely linked to Career Construction Theory (Savickas, 2005), which emphasizes that career readiness is shaped through the continuous development of adaptability, identity, and competencies. Students who are technologically literate and communicatively competent are better able to construct their career paths proactively. They can adapt to changing technological trends, engage in lifelong learning, and effectively communicate their professional identity in both physical and digital workspaces. Therefore, the integration of technological mastery and communication skills not only influences immediate employability readiness but also supports long-term career sustainability in a rapidly changing global workforce

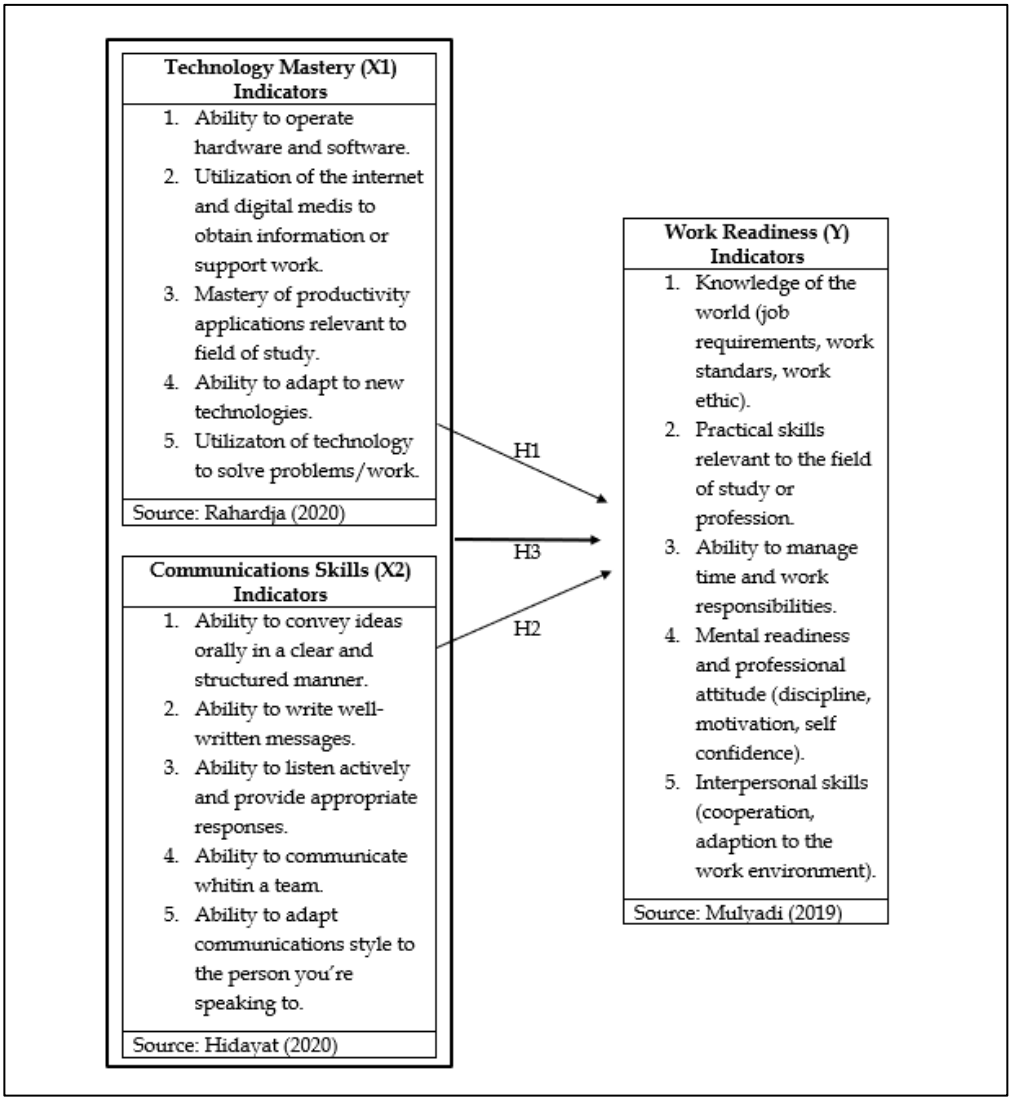

Figure 1. Frame Work of Thinking

Based on the theoretical explanation above, the research hypotheses are as follows:
H1: Technology mastery has a positive and significant effect on the work readiness of Pamulang University students.
H2: Communication skills have a positive and significant effect on the work readiness of Pamulang University students.
H3: Technology mastery and communication skills simultaneously have a positive and significant effect on the work readiness of Pamulang University students.

Thus, the relationship between technology mastery, communication skills, and work readiness can be described in the following framework:
Technology Mastery (X_1)
Communication Skills (X_2)
Student Work Readiness (Y).

Method

Research Methods This study used a quantitative approach with a descriptive associative design. The aim was to determine the effect of technology mastery and communication skills on the work readiness of Pamulang University students. The population in this study was all final-semester students at Pamulang University who were preparing to enter the workforce. The sampling technique used purposive sampling, with the criteria being students who had participated in internships or job training programs. This resulted in a sample size of 100 respondents. Data were collected through a closed-ended questionnaire structured on a five-point Likert scale, ranging from "strongly disagree" to "strongly agree." This research instrument covered three main variables: technology mastery (X_1), communication skills (X_2), and work readiness (Y). Data analysis methods used included descriptive analysis to describe the characteristics of the respondents and multiple linear regression analysis to test the effect of each independent variable on the dependent variable. Data processing was performed using SPSS version 26 to ensure the accuracy of the analysis results and statistical hypothesis testing.

Results

This research findings section presents the research findings clearly and systematically. Data analysis was conducted using SPSS to examine the effect of technology mastery (X_1) and communication skills (X_2) on work readiness (Y) among 101 student respondents. The results include simple regression, multiple regression, F-test, t-test, and coefficient of determination (R^2) tests.

table 1. Simple Regression Test of Technology Mastery Variable (X_1) Against Work Readiness Variable (Y)

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients			Correlations			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	6.170	3.143		1.963	.052					
	Mastery of Technology	.742	.073	.714	10.159	.000	.714	.714	.714	1.000	1.000

a. Dependent Variable: Work readiness

Source: Output SPSS (2025)

Based on the table above, the calculated t value obtained > t table (10.159 > 1.660) from a significance value of 0.000 < 0.05. Thus, it can be concluded that H1 is accepted or the variable of Technology Mastery (X1) partially has a positive and significant effect on Work Readiness (Y)

Table 2. Simple Regression Test of Communication Ability Variable (X_2) Against Work Readiness Variable (Y)

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients			Correlations			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	9.133	2.181		4.187	.000					
	Communication Skills	.697	.052	.801	13.322	.000	.801	.801	.801	1.000	1.000

a. Dependent Variable: Work readiness

Source: Output SPSS (2025)

Based on the table above, the constant value is 9.133, while the variable coefficient is 0.697. Thus, the simple linear regression equation is Y = 9.133 + 0.697X2. Communication Skills have a positive and significant influence on Job Readiness. The higher the Communication Skills, the higher the Job Readiness.

Table 3. Multiple Linear Regression Test of X1 and X2 Against Y

Model		Unstandardized Coefficients		Standardized Coefficients			Correlations			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	3.728	2.566		1.453	.149					
	Mastery of Technology	.300	.085	.289	3.546	.001	.714	.337	.202	.488	2.051
	Communication Skills	.517	.071	.594	7.293	.000	.801	.593	.415	.488	2.051

a. Dependent Variable: Work readiness
Source: Output SPSS (2025)

Based on the table above, the constant value is 3.726. Meanwhile, the coefficient of variable X1 is 0.300 and variable X2 is 0.517. Thus, the simple linear regression equation is Y = 3.726 + 0.300X1 + 0.317X2 + e.

Table 4. Results of the Simultaneous F Test of the Effect of Technology Mastery (X_1) and Communication Skills (X_2) on Work Readiness (Y)

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1910.388	2	955.194	105.393	.000[b]
	Residual	888.186	98	9.063		
	Total	2798.574	100			

a. Dependent Variable: Work Readiness

b. Predictors: (Constant), Communication skills, Mastery of technology
Source: Output SPSS (2025)

Based on this, the calculated F value is obtained = 105.393 > 3.089 (calculated F > F table) so that HO is rejected and HI is accepted. This means that there is a positive and simultaneous influence between Technology Mastery (X1) and Communication Skills (X2) on Work Readiness (Y).

Table 5. Results of the t-test between technology mastery (X_1) and work readiness (Y)

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	6.170	3.143		1.963	.052
	Mastery of technology	.742	.073	.714	10.159	.000

a. Dependent Variable: Work readiness
Source: Output SPSS (2025)

Based on the table above, the calculated t value obtained > t table (10.159 > 1.660) from a significance value of 0.000 < 0.05. Thus, it can be concluded that H1 is accepted or the variable of Technology Mastery (X1) partially has a positive and significant effect on Work Readiness (Y).

Table 6. Results of the t-test between communication skills (X_2) and work readiness (Y)

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	9.133	2.181		4.187	.000
	Communication Skills	.697	.052	.801	13.322	.000

a. Dependent Variable: Work readiness
Source: Output SPSS (2025)

Based on the table above, the calculated t value obtained > t table (13, 322 > 1.660) from a significance value of 0.000 < 0.05. Thus, it can be concluded that HI is accepted or the Communication Ability variable (X2) partially has a positive and significant effect on Work Readiness (Y).

Table 7. Model Summary (Coefficient of Determination)

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.826[a]	.683	.676	3.011	.683	105.393	2	98	.000	1.865

a. Predictors: (Constant), Communication skills, Mastery of technology

b. Dependent Variable: Work readiness

Source: Output SPSS (2025)

Based on the table above, the coefficient of determination is 0.683. It can be concluded that the variables of Technology Mastery (X1) and Communication Skills (X2) contribute 68.39% to the Work Readiness (Y) variable. The remaining 31.7% is due to other factors not included in this study.

Discussion

Based on the results of the regression analysis, it was found that the variables Technology Mastery (X1) and Communication Skills (X2) have a positive and significant effect on Job Readiness (Y). This is demonstrated by the results of the multiple regression test, which yielded the equation Y = 3.726 + 0.300X1 + 0.517X2 + e. The constant value of 3.726 indicates that if both independent variables are held constant, job readiness remains at 3.726.

The regression coefficient for the Technology Mastery variable is 0.300, meaning that every one-unit increase in technology mastery will increase job readiness by 0.300 units, assuming other variables remain constant. Similarly, the Communication Skills coefficient of 0.517 indicates that a one-unit increase in communication skills will increase job readiness by 0.517 units. This value indicates that communication skills have a greater influence on job readiness than technology mastery.

The t-test results confirmed these findings. For the Technology Mastery variable, the calculated t-value was 10.159 with a significance level of 0.000 (<0.05), indicating a partial significant effect on work readiness. Meanwhile, the Communication Skills variable had a calculated t-value of 13.322 with a significance level of 0.000 (<0.05), also indicating a partial positive and significant effect on work readiness. Therefore, the hypothesis that both independent variables have a positive effect on work readiness is accepted.

Furthermore, the F-test results showed a calculated F-value of 105.393 with a significance level of 0.000 (<0.05). This indicates that simultaneously, Technology Mastery and Communication Skills have a positive and significant effect on Work

Readiness. This means that these two factors together can explain the variation in the work readiness variable.

The coefficient of determination (R^2) test results showed a value of 0.683, or 68.3%. This indicates that Technology Mastery and Communication Skills together explain 68.3% of the variation in Job Readiness, while the remaining 31.7% is influenced by other factors not included in this research model, such as work experience, motivation, discipline, or the work environment.

Overall, the results of this study reinforce the theory that an individual's job readiness is influenced not only by technical skills such as technology mastery, but also by non-technical skills such as interpersonal communication. Technology mastery helps individuals adapt to digital developments in the workplace, while communication skills facilitate collaboration, coordination, and the effective communication of ideas. Therefore, improving these two aspects is crucial in preparing a competent workforce ready to face the challenges of the modern workplace.

Conclusion

Based on the research findings and statistical analysis, it can be concluded that technology mastery and communication skills have a positive and significant effect on students' work readiness at Pamulang University. The results of the t-test show that both variables have a significant partial influence, meaning that when students' mastery of technology or their communication skills increase, their level of work readiness also improves. Furthermore, the regression coefficient of communication skills is higher than that of technology mastery, indicating that communication competence contributes more dominantly to students' readiness to enter the workforce.

The results of the F-test further support this finding, showing that technology mastery and communication skills simultaneously influence work readiness with a significance level below 0.05. The coefficient of determination (R^2) obtained was 0.683, which means that 68.3% of the variation in work readiness can be explained by these two variables. The remaining 31.7% is influenced by other factors not examined in this study, such as motivation, work experience, discipline, or environmental conditions. This finding highlights that employability readiness is a multidimensional concept that depends on both technical and non-technical competencies.

The implications of this study suggest that students who possess strong technological mastery are better prepared to adapt to digital transformation in the modern workplace. Meanwhile, students with strong communication skills are more capable of collaborating, problem-solving, and building professional relationships, which are essential in a team-based and networked work environment. The integration of these two competencies is vital in forming graduates who are not only job-ready but also

competitive and innovative in responding to the rapid changes of the global labor market.

Therefore, higher education institutions, particularly Pamulang University, should continue to strengthen both digital literacy and soft skills development through relevant curricula, practical training, and experiential learning programs such as internships and industry collaborations. By doing so, universities can produce graduates who are holistically competent—technologically skilled, communicatively effective, and ready to face the challenges of the Fourth Industrial Revolution. Future research is also recommended to explore other variables, such as motivation, leadership, and adaptability, to provide a more comprehensive understanding of the factors influencing student employability readiness.

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