

Employability Skills Developed through Internship Experiences in PLN Customer Service Units

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ABSTRACT

The development of the contemporary labor market demands that university graduates possess not only technical skills but also interpersonal and professional competencies that support work readiness. In this context, internship programs serve as a critical vehicle for developing employability skills through authentic work experiences. This study aims to identify and describe the employability skills developed through the internship experiences of Business Administration students at the Customer Service Unit (ULP) of PT PLN (Persero). A descriptive qualitative approach was employed, with data collected from student internship reports, in-depth interviews, and documentation. Data were analyzed using Qualitative Content Analysis (QCA) through the processes of open coding, categorization, and theme abstraction. The findings reveal that the employability skills developed encompass two principal dimensions: hard employability skills and soft employability skills. Soft employability skills developed more prominently than hard employability skills, attributable to the nature of work in the Customer Service Unit, which demands intensive customer interaction and coordination within an organizational setting. The combination of these skills also constitutes transferable competencies that contribute to long-term employability. This study yields implications for curriculum development and internship programs oriented toward the integration of technical and non-technical skills in preparing graduates for the professional world.

Keywords: Employability skills; Internship; Customer Service Unit; Work-integrated learning.

INTRODUCTION

The advancement of digital technology, automation, and organizational transformation has fundamentally altered the labor market's expectations of university graduates. Organizations no longer require merely technically proficient employees in their respective fields; they increasingly seek individuals capable of adapting to change, communicating effectively, working collaboratively, utilizing technology, and resolving

complex problems in increasingly dynamic work environments. Geng et al. (2025) and Vlachopoulos and Tsitiridou (2026) indicate that communication skills, interpersonal abilities, teamwork, problem solving, creativity, and adaptability are competencies consistently demanded across various industrial sectors. In this context, Somogyi (2021) explains that employability skills encompass a combination of hard skills and soft skills necessary for obtaining, maintaining, and advancing a career in the dynamic labor market.

Although employability skills are increasingly recognized, several studies reveal a persistent gap between the competencies developed in higher education and those required by the labor market (Geng et al., 2025). This gap relates not only to technical skill proficiency but also to the ability to apply knowledge in real work situations. Setiawan et al. (2025) found that employability skills significantly contribute to career adaptability, indicating that individuals with stronger work-related skills tend to be better prepared to navigate occupational change and dynamics. Furthermore, Fidiah et al. (2022) demonstrated that industry increasingly emphasizes communication, teamwork, responsibility, and problem-solving as factors supporting workforce performance. These findings suggest that higher education must provide learning experiences that extend beyond academic knowledge acquisition to encompass the development of competencies relevant to the needs of the labor market.

One widely adopted approach to bridging this gap is the internship program as a component of work-integrated learning. Vlachopoulos and Tsitiridou (2026) demonstrate that the development of employability skills is most effectively achieved through learning experiences directly connected to professional contexts and through collaboration between higher education institutions and industry. Through direct work experience, students have the opportunity to integrate academic knowledge with professional practice, understand organizational culture, and develop a range of skills required in the workplace. Scandurra et al. (2024) note that internships and work-based experiential learning represent the most widely utilized forms of intervention by higher education institutions to enhance graduate employability, as they provide authentic experiences difficult to replicate in classroom settings. Accordingly, internship experiences serve not only as a medium for applying theoretical knowledge but also as an environment that fosters the development of work-related skills relevant to organizational needs. Within this context, it is essential to understand how these skills develop within specific work environments that serve as internship placements for students.

The energy sector is among those experiencing significant changes in workforce competency requirements. Digital transformation, the adoption of integrated information systems, and increasing service quality demands have altered the nature of work in energy sector organizations. Arcelay et al. (2021) indicate that the transformation of the energy sector has driven growing demand for digital skills, data management, analytical capabilities, and adaptability to technological change. Correspondingly, Arilaha et al. (2025) identify that one of the principal challenges in

the energy sector is a skills gap, particularly in digital, collaborative, and cross-disciplinary competencies required to support organizational sustainability. Although the energy sector is often associated with technical electrical competencies, its transformation has also increased the demand for administrative competencies, information management, customer service, and digital technology utilization all of which constitute critical components of modern organizational operations.

These needs are evident at PT PLN (Persero), particularly through its Customer Service Units (ULP), which serve as the primary interface in delivering services to customers. In the context of employability skills development, the distribution of student internship placements can provide insights into the work environments relevant to the formation of professional competencies while simultaneously indicating potential future human resource needs. Data from the Internship Program of the Business Administration Study Program at Universitas Negeri Makassar indicate that PT PLN (Persero) has consistently served as a strategic partner in hosting student internships. In Academic Year 2025/2026, 29 of 88 internship students (32.95%) were placed at various units of PT PLN (Persero), with 14 students (48.28%) assigned to Customer Service Units (ULP). In the odd semester of Academic Year 2026/2027, 17 of 78 internship students (21.79%) were placed at various units of PT PLN (Persero), of whom more than half specifically 52.94% were assigned to ULP. This data indicates that ULP consistently absorbs the highest proportion of Business Administration students compared to other PLN units. As a unit responsible for customer service, service administration, customer data management, information system utilization, and coordination of diverse service needs, ULP provides a work environment that enables students to develop a wide range of skills relevant to organizational requirements. The consistently high proportion of students placed in this unit further suggests that ULP has the potential to serve as a work environment requiring human resources with strong competencies in administration, customer service, professional communication, information management, and digital capabilities in the future.

Despite the growing body of research on employability skills, the majority of studies continue to focus on measuring levels of employability or examining the influence of employability on specific variables using quantitative approaches. Setiawan et al. (2025), for instance, investigated the relationship between employability skills and career adaptability, while Fidiah et al. (2022) identified employability skills required within specific industrial contexts. Although these studies make important contributions, they offer limited explanation of how work-related skills develop through the actual work experiences of students during internships. Additionally, research on employability skills in the context of public utility companies particularly in customer service units within the energy sector remains relatively limited. Consequently, there remains an insufficient understanding of the specific skills that develop and are required within the Customer Service Unit work environment, which could otherwise inform human resource development and curriculum alignment in higher education.

To address this gap, this study aims to uncover the skills emerging from the actual work activities of Business Administration students during their internships at the Customer Service Units of PT PLN (Persero). This study maps the competencies relevant to the Customer Service Unit work environment of PT PLN (Persero) based on students' authentic work experiences. In doing so, the study not only contributes to the employability skills literature but also provides empirical insights into the competencies required for human resource development in customer service units of the energy sector.

METHOD

This study employs a descriptive qualitative approach to identify and describe the skills developed through the internship experiences of Business Administration students at the Customer Service Units (ULP) of PT PLN (Persero). The qualitative approach was selected because it enables the researcher to understand the experiences, work activities, and meanings constructed by students during their internships within an authentic work context, thereby facilitating a more in-depth understanding of the skills relevant to organizational needs (Creswell & Poth, 2018).

Research data were drawn from the internship reports of students in the Business Administration Study Program at Universitas Negeri Makassar who completed their internships at the Customer Service Units of PT PLN (Persero), specifically at ULP Mattoanging, ULP Panakkukang, and ULP Sungguminasa. Internship reports were selected as a primary data source because they contain detailed descriptions of work activities, assigned tasks, internship experiences, and reflective learning outcomes documented by students during their time in the work environment. To obtain a more comprehensive understanding of the experiences documented in the internship reports, the study also incorporated in-depth interviews with students who had completed the internship program at ULP. Informants were selected purposively, taking into account their direct involvement in customer service activities, service administration, and data management during the internship period. Interviews were conducted in a semi-structured format until data saturation was achieved a condition in which the information collected exhibited recurring patterns and no longer generated new categories or data (Saunders et al., 2018). Based on this principle, the study involved four informants who were deemed capable of providing rich information regarding the skills utilized and developed during the internship.

In addition to internship reports and interviews, the study also utilized reflective notes and documentation from student internship result seminars as supplementary data sources. The use of multiple data sources aimed to achieve a more comprehensive understanding of students' experiences while enhancing the credibility of the research findings. Data validity was established through source triangulation by comparing and confirming information obtained from internship reports, interview transcripts, and seminar reflective notes (Patton, 2015).

Data were analyzed using Qualitative Content Analysis (QCA), a method designed to systematically identify, organize, and interpret the meanings contained within textual data (Elo & Kyngäs, 2008). The analytical process began with repeated readings of all internship reports, interview transcripts, and reflective notes to establish a comprehensive understanding of the data. Open coding was subsequently applied to identify work activities, experiences, and the various forms of skills emerging from the data. Codes sharing similar meanings were then grouped into broader categories and further abstracted into skill themes representing the competencies developed within the Customer Service Unit work environment of PT PLN (Persero). The resulting themes were interpreted to explain the skills relevant to the human resource needs of customer service units in the energy sector.

RESEARCH RESULTS AND DISCUSSION

The analysis of the collected data and information reveals that the internship experience not only provided students with an understanding of the company's operational activities but also constituted a learning environment that fostered the development of various skills relevant to the needs of the Customer Service Unit (ULP) work environment. Through Qualitative Content Analysis (QCA), two principal skill themes were consistently identified across multiple data sources (Table 1): (1) Hard Employability Skills, encompassing digital and information management skills and administrative accuracy skills; and (2) Soft Employability Skills, encompassing customer service communication skills, teamwork and workplace adaptability skills, and professional responsibility and work discipline.

1. Hard Employability Skills

Data analysis indicates that the Customer Service Unit (ULP) work environment of PT PLN (Persero) provides a strong setting for the development of hard employability skills that is, technical skills directly applied in the execution of work tasks. In the ULP context, these skills are primarily manifested through digital and information management capabilities and administrative accuracy, both of which constitute integral components of the customer service process.

a. Digital and Information Management Skills

In this study, Digital and Information Management Skills are conceptualized as the ability to manage, process, verify, and utilize information through digital technology to support the effectiveness of work performance. Within the Customer Service Unit context, these skills extend beyond mere proficiency in operating software or information systems; they also encompass the ability to understand data workflows, maintain information accuracy, and

ensure that the information employed effectively supports the customer service process.

These skills developed through students' involvement in using the company's information systems to support customer service and administrative processes. The work activities performed were not limited to operating applications but also included entering customer data, validating information, processing operational data, and managing digital documents utilized across various service processes. Through these activities, students learned to recognize the importance of data accuracy, the interdependencies among processes within the company's information systems, and the role of technology in supporting service effectiveness. These experiences demonstrate that digital information management constitutes an inseparable component of modern administrative work, given that virtually all service processes depend on the accuracy and availability of data managed through information systems. Consequently, the digital skills developed were not solely oriented toward technical application proficiency but also toward the capacity to manage information as the basis for decision-making and the delivery of high-quality services.

b. Administrative Accuracy Skills

In this study, Administrative Accuracy Skills are conceptualized as the ability to perform administrative tasks systematically, carefully, and accurately in accordance with the procedures established by the organization. These skills encompass the ability to examine, verify, manage, and document various types of information and documents used in work processes, thereby minimizing errors and maintaining service quality.

These skills developed through various activities related to archiving customer documents, printing Field Data Changes and billing records, verifying administrative documents, checking the completeness of customer data, and preparing various service support documents. These activities demonstrate that each administrative process requires a high degree of accuracy, as errors in data recording or processing could adversely affect the service delivery process and company operations. Through these experiences, students learned to work in a structured manner by following the standard operating procedures established by the organization. Moreover, students were trained to re-verify data and documents prior to further processing in order to ensure the accuracy of the information utilized. This condition demonstrates

that administrative accuracy does not merely serve the purpose of completing administrative tasks but also plays a critical role in maintaining information reliability, service quality, and the overall effectiveness of organizational work processes.

Table 1. *Results of Qualitative Content Analysis (QCA)*

Work Activities and Experiences	Category	Theme
Using AP2T system; Customer data entry; Data validation; Operational data processing; Using Microsoft Excel and company information systems	Digital information management	Hard Employability Skills
Document archiving; Printing Field Data Changes (PDL) and billing records; Verifying administrative documents; Checking data completeness; Preparing service administration documents	Administrative accuracy	
Providing information to customers; Assisting service processes; Interacting with customers and employees; Conveying service information clearly and professionally	Customer service communication	Soft Employability Skills
Coordinating with employees; Following supervisor directives; Working in a new work environment; Adapting to organizational procedures and culture	Teamwork and workplace adaptability	
Completing tasks according to targets; Adhering to work procedures; Maintaining customer data confidentiality; Fulfilling responsibility for assigned tasks	Professional responsibility and work discipline	

2. Soft Employability Skills

In addition to technical skills, data analysis also indicates that the internship experience at the Customer Service Units (ULP) of PT PLN (Persero) contributed to the development of soft employability skills that is, non-technical skills related to the ability to interact, adapt, and exhibit professional behavior in the workplace. In the ULP context, these skills are reflected through customer service communication competencies, teamwork and organizational adaptability, and professional responsibility and work discipline, all of which support service effectiveness.

a. Customer Service Communication Skills

In this study, Customer Service Communication Skills are conceptualized as the ability to convey information clearly, establish effective interactions, and respond to customer needs professionally within the context of service delivery. These skills encompass not only verbal communication and information delivery but also the ability to listen actively, understand customer needs, and adapt communication styles to the specific service situations encountered.

These skills developed through various activities related to customer service, the provision of service information, and interaction with both customers and employees in the ULP work environment. As the primary point of contact between the company and its customers, ULP requires communication that is clear, professional, and oriented toward addressing customer needs. Through these experiences, students learned how to deliver service information effectively, explain service procedures, and maintain a professional demeanor in every interaction. In addition to supporting service quality, effective communication also plays an important role in building positive relationships between the company and its customers. Accordingly, the communication skills developed during the internship are not limited to the ability to convey messages but also reflect the capacity to establish interpersonal relationships that support successful service delivery.

b. Teamwork and Workplace Adaptability Skills

In this study, Teamwork and Workplace Adaptability Skills are conceptualized as the ability to work collaboratively with various parties while adapting to the work environment, organizational culture, and the evolving demands of the workplace. These skills reflect an individual's capacity to contribute effectively within a team while sustaining performance in dynamic work situations.

These skills developed through students' involvement in various

activities requiring coordination with employees, adherence to supervisors' directives, and adjustment to the procedures and work systems prevailing in the company. During the internship, students entered a professional environment characterized by work patterns, service standards, and organizational culture that differed substantially from the academic environment. This situation compelled students to learn to understand the roles of individual team members, develop effective working communication, and adapt to the rhythm and demands of the work environment. These experiences demonstrate that the successful completion of tasks is determined not only by individual capability but also by the ability to collaborate and adapt within the organizational setting. Accordingly, collaboration and adaptability represent important competencies that support students' readiness to enter the professional world.

c. Professional Responsibility and Work Discipline

In this study, Professional Responsibility and Work Discipline are conceptualized as the ability to carry out tasks responsibly, comply with organizational rules and procedures, and demonstrate a commitment to the quality of work performed. These skills reflect professional attitudes that support individual reliability in fulfilling roles and responsibilities in the workplace.

These skills developed through various activities requiring students to complete tasks in accordance with established targets, comply with the company's standard operating procedures, maintain the confidentiality of customer data, and ensure that every assigned task was completed satisfactorily. Within the ULP work environment, every service process has direct consequences for the quality of service received by customers, necessitating that all work be performed with discipline and in accordance with established procedures. Through these experiences, students learned that professionalism is not limited to technical competence in completing tasks but also encompasses integrity, commitment, punctuality, and accountability for work outcomes. Professional responsibility and work discipline therefore emerge as competencies that developed strongly during the internship and constitute a critical foundation for students' readiness to adapt to the professional world.

This study demonstrates that the employability skills developed through the internship experience at the Customer Service Units (ULP) of PT PLN (Persero)

comprise two complementary dimensions: hard employability skills and soft employability skills. This finding reveals that work readiness is built not only through the mastery of technical skills directly relevant to job performance but also through interpersonal abilities and professional behaviors that enable individuals to adapt and contribute effectively within organizational settings. This aligns with Knight and Yorke's (2004) framework, which positions skills, understanding, and personal attributes as interrelated components in the formation of employability, and supports the view that work competency represents a combination of technical skills, generic competencies, and personal attributes that collectively determine an individual's readiness to enter the professional world.

This finding demonstrates that non-technical skills make a substantial contribution to the formation of work readiness and students' perceived employability. This result is consistent with the findings of Mohamad et al. (2025), who found that soft skills, technical skills, and social mobility skills significantly influence perceived employability among students, with non-technical skills playing an important role in enhancing individual readiness to meet the demands of an increasingly dynamic labor market. The dominance of non-technical skills can be understood through the characteristics of the Customer Service Unit as a unit that interacts directly with customers and requires intensive coordination among employees. In such a work environment, service success is determined not only by the ability to manage data and complete administrative tasks but also by the capacity to establish effective communication, understand customer needs, work collaboratively, and adapt to organizational dynamics. This finding supports the research of Ananda et al. (2023), which demonstrates that soft skills make a stronger contribution to work readiness than individual technical skills. Furthermore, Foerster-Metz and Golowko (2017) indicate that service-based organizations tend to place greater emphasis on communication, customer orientation, teamwork, learning capacity, and problem-solving than on more specific technical competencies.

This finding also reveals that the internship experience does not merely produce the mastery of work-related skills but also has the potential to shape individuals' career orientations and readiness for future career development. This is consistent with Hendrawan et al. (2025), who demonstrate that the development of soft and hard skills through experiential learning contributes to the formation of career attitudes among students, thereby making work-based learning experiences a critical medium for facilitating the transition to the professional world. Digital skills, administrative accuracy, communication, collaboration, adaptability, and professionalism constitute

competencies that remain relevant regardless of whether an individual transitions across organizations, industry sectors, or types of employment. This finding reinforces the view that employability is not merely the capacity to secure initial employment but represents a sustained ability to obtain, maintain, and develop career opportunities throughout one's professional journey (Hillage & Pollard, 1998). This affirms that the combination of hard and soft employability skills developed through the internship experience functions as a foundation for long-term employability, enabling individuals not only to perform their jobs effectively but also to adapt to technological change, organizational demands, and the dynamics of the labor market.

CONCLUSION

The findings of this study indicate that the employability skills developed through the internship experience encompass two principal dimensions: hard employability skills and soft employability skills. Of the two dimensions, soft employability skills developed more prominently than hard employability skills. This indicates that success in the Customer Service Unit is not solely determined by technical competence but also by the ability to communicate, adapt, collaborate, and demonstrate professionalism in the workplace.

This study is subject to certain limitations, as it focuses on the internship experiences of Business Administration students in the Customer Service Units of PT PLN (Persero) within specific geographic and temporal contexts, thereby precluding the generalization of findings to all PLN work units or the energy sector more broadly. Moreover, the primary data sources consist of internship reports and student experiences, meaning that the findings more closely reflect the perspectives of internship participants than those of supervisors or the organization itself. Notwithstanding these limitations, the study yields practical implications for study programs and internship program managers to strengthen the development of digital, administrative, communication, collaborative, adaptability, and professionalism skills within curricula and work-based experiential learning programs. Theoretically, this study enriches the employability skills literature by demonstrating that the customer service environment in the energy sector serves as a learning context that enables the development of a combination of hard and soft employability skills that support work readiness and the career sustainability of graduates.

BIBLIOGRAPHY

- Ananda, S. P., Nugroho, G., & Kurniawan, W. F. (2023). The influence of student engagement in organizations, soft skills, and hard skills on employment readiness (A case study on social science students in Pekanbaru City). *Al-Hikmah: Jurnal Agama dan Ilmu Pengetahuan*, 20(2), 148–163. [https://doi.org/10.25299/al-hikmah:jaip.2023.vol20\(2\).13708](https://doi.org/10.25299/al-hikmah:jaip.2023.vol20(2).13708)

- Arcelay, I., Goti, A., Oyarbide-Zubillaga, A., Akyazi, T., Alberdi, E., & Garcia-Bringas, P. (2021). Definition of the future skills needs of job profiles in the renewable energy sector. *Energies*, 14(9), Article 2609. <https://doi.org/10.3390/en14092609>
- Arilaha, N. I., Zairil, Widayati, C., Pramudito, O., Ardian, D., Fadjarenie, R. A., & Rahma, A. N. (2025). Bridging the skill gap in energy transition: Towards a sustainable workforce development. *KnE Social Sciences*, 98–110. <https://doi.org/10.18502/kss.v10i23.19756>
- Creswell, J. W., & Poth, C. N. (2018). *Qualitative inquiry and research design: Choosing among five approaches* (4th ed.). Sage Publications.
- Elo, S., & Kyngäs, H. (2008). The qualitative content analysis process. *Journal of Advanced Nursing*, 62(1), 107–115. <https://doi.org/10.1111/j.1365-2648.2007.04569.x>
- Fidiah, L., Marsono, & Nurhadi, D. (2022). Analisis employability skills tenaga kerja lulusan SMK pada industri jasa service dan maintenance ditinjau dari keterampilan komunikasi dan kerjasama tim. *Briliant: Jurnal Riset dan Konseptual*, 7(3), 679–690. <https://doi.org/10.28926/briliant.v7i3.924>
- Foerster-Metz, U. S., & Golowko, N. (2017). Employability skills for the Romanian outsourcing industry. In *Proceedings of the International Conference on Business Excellence* (Vol. 11, pp. 1068–1080). De Gruyter. <https://doi.org/10.1515/picbe-2017-0110>
- Geng, L., Ma, M., Osei-Kyei, R., Jin, X., & Shrestha, S. (2025). A review of employability skills for graduates in the construction sector. *Higher Education, Skills and Work-Based Learning*, 15(7), 153–170. <https://doi.org/10.1108/HESWBL-08-2024-0242>
- Hendrawan, R., Nastiti, T., Almahendra, R., & Rosari, R. (2025). Linking soft and hard skills to career attitudes: The mediating role of self-esteem in experiential learning programs. *Higher Education, Skills and Work-Based Learning*, 15(6), 1263–1281. <https://doi.org/10.1108/HESWBL-11-2024-0358>
- Hillage, J., & Pollard, E. (1998). *Employability: Developing a framework for policy analysis*. Institute for Employment Studies.
- Knight, P. T., & Yorke, M. (2004). *Learning, curriculum and employability in higher education*. RoutledgeFalmer.
- Mohamad, N. M., Jaaffar, A. H., Majid, N. A., & Isa, A. (2025). The effect of essential skills on perceived employability: A case of Malaysian undergraduates in energy-focused universities. *Higher Education, Skills and Work-Based Learning*, 15(2), 349–368. <https://doi.org/10.1108/HESWBL-12-2023-0338>
- Patton, M. Q. (2015). *Qualitative research & evaluation methods: Integrating theory and practice* (4th ed.). Sage Publications.
- Saunders, B., Sim, J., Kingstone, T., Baker, S., Waterfield, J., Bartlam, B., Burroughs, H., & Jinks, C. (2018). Saturation in qualitative research: Exploring its conceptualization and operationalization. *Quality & Quantity*, 52(4), 1893–1907. <https://doi.org/10.1007/s11135-017-0574-8>

- Scandurra, R., Kelly, D., Fusaro, S., Cefalo, R., & Hermannsson, K. (2024). Do employability programmes in higher education improve skills and labour market outcomes? A systematic review of academic literature. *Studies in Higher Education*, 49(8), 1381–1396. <https://doi.org/10.1080/03075079.2023.2265425>
- Setiawan, A., Muhyi, H. A., & Hakim, R. M. A. (2025). Pengaruh employability skills terhadap pengembangan adaptabilitas karier (Studi pada alumni Indonesian International Student Mobility Awards di Universitas Padjadjaran). *Jurnal Manajemen Pendidikan dan Ilmu Sosial (JMPIS)*, 6(2), 1321–1332. <https://doi.org/10.38035/jmpis.v6i2>
- Somogyi, D. I. (2021). Employability skills: Correspondent hard and soft employability skills for main economic sectors. *Ovidius University Annals, Economic Sciences Series*, 21(2), 312–318.
- Vlachopoulos, D., & Tsitiridou, O. P. (2026). Preparing university graduates for the labour market through employability skills development and university–industry collaboration: A systematic review. *Education Sciences*, 16(3), Article 426. <https://doi.org/10.3390/educsci16030426>