

The Social Responsibility of Universities in Developing Students' Essential Competencies (Employability-Based Competency)

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Abstract

The issue of employability in higher education policies and the social responsibility of universities has recently become a central focus of research. This paper aims to examine the social responsibility of universities in developing the competencies required by students, particularly employability-related competencies. The study adopts a qualitative approach through a systematic review of articles published in the Web of Science and Scopus databases between 2023 and 2025. A total of 42 articles were purposefully selected and analyzed using thematic analysis. The findings revealed that the social responsibility of universities in enhancing employability-related skills among students includes knowledge and understanding, cognitive skills, practical skills, personal skills, entrepreneurship, and professional ethics. The paper provides recommendations for further research on employability skills and emphasizes the importance of considering the views of students, graduates, employers, and faculty members in future studies.

Keywords: Social responsibility, university social responsibility, competency development, employability, development of students' required competencies, employability-based student competencies.

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Introduction

By the late twentieth century, higher education had emerged as a pivotal driver of national economic development and a vital instrument for cultivating the individual capacities necessary to engage with the evolving dynamics of the global marketplace. Ultimately, it contributes not only to improved quality of life within professional environments but also to progress in political, social, and economic spheres. Consequently, the global recognition of the significance of higher education has become increasingly pronounced, highlighting its value not only in fulfilling human needs but also in strengthening connections with the productive sector—underscoring the transformative role of education alongside economic advancement (Valencia-Arias et al., 2024).

On the one hand, higher education has matured into a competitive, sophisticated, and diversified arena; on the other hand, it is situated within a national and international landscape undergoing profound, expansive, and continuous transformation. Therefore, universities must reshape their structures and strategies to confront emerging challenges and seize available opportunities. Universities today are not merely providers of educational and research services; they are also foundational in shaping the civic identity and responsibilities of individuals toward both their nation and the broader global community. Accordingly, universities play a critical role in equipping future generations to achieve success, navigate globalization, foster economic growth, and contribute to building a sustainable future worldwide. Within this context, university social responsibility has emerged as a central theme in influential discussions among higher education stakeholders in the twenty-first century (Moradzadeh, Keshtkar, & Imani, 2024).

Cultivating socially responsible students has now emerged as a key strategy in developing their employability competencies (Reig-Aleixandre et al., 2024). Research findings indicate that practical experiences, such as social internships, can effectively enhance students' sense of responsibility, foster a service-oriented approach to their profession, and develop their personal and social skills (Reig-Aleixandre et al., 2024). Positioned as a strategic framework, University Social Responsibility (USR) is not only regarded as an instrument for sustainable community development but can also serve as an effective platform for nurturing essential student competencies and enhancing their employability (Hernández et al., 2024).

Higher education serves as a key catalyst for developing knowledge-based economies and cohesive societies. Through education, research, and community engagement, universities contribute to the development of human capital, foster innovation and discovery, and support social, economic, cultural, and environmental progress. Historically, higher education has played a significant societal role. Since the medieval period, universities have served as crucial spaces for advancing democratic values. In the twenty-first century, interest in the social role of higher education has grown substantially. This shift is accompanied by a transformation in knowledge production models—from discipline-specific, fundamental

research to more applied, interdisciplinary frameworks (Queirós et al., 2022), alongside a growing emphasis on accountability, responsiveness, and tangible societal impact (Mayer & Sporn, 2018).

Within this evolving landscape, the changing role of universities and their continuous interaction with surrounding environments has come into sharp focus, reinforcing the imperative for universities to eschew insular behavior and to foster open, symbiotic relationships with their social contexts (Arango, 2019). Such transformation empowers universities not only to fulfill their educational mission but also to respond effectively to shifting societal demands, thereby reaffirming their relevance and influence. As a result, the institutionalization of university social responsibility has increasingly emphasized the integration of civic competencies into education, driving heightened scholarly interest in higher education's engagement with social responsibility—now viewed as a strategic and nuanced management of a university's impact within its operational ecosystem (Valencia-Arias et al., 2024).

The role of higher education institutions in cultivating responsible values among students has become increasingly fundamental. Education and research in management must convey that the modern conception of an organization encompasses dimensions such as corporate social responsibility. This entails voluntary organizational engagement in social, environmental, ethical, and humanitarian initiatives designed to meet the expectations of individuals and society. Such activities help organizations construct the identity and image they wish their stakeholders to perceive (Gallardo-Vázquez et al., 2024). Higher education is thus a key driver in the development of knowledge-based economies and cohesive societies. Through education, research, and community service, universities play a pivotal role in developing human capital, enhancing innovation and research, and contributing to the social, economic, cultural, and environmental progress of nations (Godonoga & Šporin, 2022).

Moreover, academics and professionals are increasingly recognizing the importance of employability skills, including both practical and soft skills, as essential for career success across all sectors (Otsada & Vanfichit, 2024). Soft skills such as communication, collaboration, problem-solving, and emotional intelligence are strongly associated with job performance and satisfaction. Employers also value technical competencies that enhance interpersonal interactions and informed decision-making (Shealy & Nachang, 2023). In an era marked by globalization and rapid technological advancements, there is a pressing need for continuous upskilling, with a focus on critical thinking, creativity, and collaboration—skills deemed essential in the modern workplace. Despite growing awareness of the significance of employability skills, a notable proportion of graduates remain underprepared for the workforce, primarily because their educational experience has not sufficiently prioritized these competencies (Suwitnu et al., 2025). This underscores the urgent need to integrate employability skill development into higher education curricula.

The core focus of this discourse is to examine the extent to which universities prepare students for employment or entrepreneurship, and to analyze the efforts and concerns of both instructors and students regarding these essential skills. Employability competencies—encompassing teamwork, communication, leadership, and problem-solving—are increasingly recognized as critical to graduate success across diverse fields (Ahsan, Qureshi, & Rashid, 2025). Empirical studies, such as that by Azudoh et al. (2012), highlight the strong demand for these skills across industries, while also pointing to employer dissatisfaction with the job readiness of graduates. For instance, Baker et al. (2017) reported that over half of surveyed businesses deemed graduates inadequately prepared for the workforce. The evolving global labor market—characterized by technological innovation and industrial restructuring—further emphasizes the necessity of cultivating broad and transferable skills. This transformation necessitates lifelong learning and adaptability, as individuals are likely to pursue multiple careers throughout their professional lives (Grimshaw, 2021).

Work-based learning (WBL) refers to an educational approach that integrates theoretical instruction with practical experience in real workplace environments. As such, WBL plays a pivotal role in enhancing graduates' employability skills by bridging the gap between academic knowledge and its practical application in professional settings (Lim et al., 2024; Mokhtar et al., 2024). By combining formal education with real-world experiences, WBL facilitates the development of both technical and non-technical competencies essential for career success (Young et al., 2024).

Collaboration between higher education institutions and industry partners in designing WBL programs ensures alignment between the skills imparted and labor market requirements, thereby increasing the relevance and effectiveness of the educational experience (Amish, 2024). Consequently, WBL has emerged as a transformative educational method that not only prepares students for immediate employment but also equips them with lifelong learning competencies necessary for sustained career advancement (Otsada & Vanphichit, 2024).

Professional identity pertains to an individual's sense of self and perceived role within their career, encompassing their skills, interests, and values associated with their chosen profession. It serves a critical function in the dynamic interplay between WBL and employability skills, acting as a foundational element that shapes how individuals engage with career development and learning experiences (Carlson, 2024; Thapa, 2024). Building a strong professional identity is particularly vital for young individuals navigating the complexities of the modern labor market, as it informs their career aspirations and decision-making processes (Kugler et al., 2024; Strack, 2024).

Research suggests that professional identity mediates the relationship between personal development initiatives and work engagement, indicating that individuals actively pursuing personal growth are more likely to

cultivate a robust professional identity, which in turn enhances their participation in WBL environments (Li et al., 2024; Liao et al., 2024). Moreover, professional identity not only facilitates the transition from education to employment but also strengthens self-efficacy and role identification, which are critical for achieving favorable career outcomes (Liao et al., 2024; Stephens, 2024).

The integration of instructional and workplace-based learning experiences in vocational education is of paramount importance, as it enables trainees to relate theoretical knowledge to practical applications, reinforce their professional identity, and augment their employability potential (Fantinelli et al., 2024; Zhao, 2024). Furthermore, the fluid nature of professional identity allows individuals to adapt to evolving labor markets and expectations, making it a crucial element of lifelong learning and career adaptability (Swieten et al., 2025).

Employability competencies encompass the skills, knowledge, and attitudes that employers deem essential for newly appointed graduates entering the workforce. These competencies not only improve individual performance but also contribute to wealth creation, job generation, and industrial development in any nation, serving as a bridge between education and the labor market. To acquire these employability competencies, learners must engage in competency-based education (CBE). By definition, CBE is a learning model in which the required level of knowledge and skill for a specific task must be demonstrated prior to progressing to the next task (Lamek, 2023). Therefore, fostering a strong professional identity through effective work-based learning programs is critical to equipping students with the competencies necessary to excel in their chosen careers (Thapa, 2024).

Ultimately, this perspective reinforces the strategic value of the university as a cornerstone for societal advancement, with an expectation to produce individuals capable of creating added value in goods and services (Tomlinson, 2012). However, when addressing the social responsibility and public value of the university, it is neither appropriate nor productive to isolate aspects that contribute to employability from those essential to the design of socially meaningful projects, particularly considering their proximity to real-world needs and relevance to the field of higher education.

Hansová (2021) recently emphasized the importance of avoiding artificial separation between students' academic and life projects. Consequently, we must resist allowing labor market limitations to narrow the discourse on student employability and future employment. This concern was similarly echoed by Lawson et al. (2015), who asserted that transversal competencies, while aimed at employability, simultaneously represent the capacity to contribute to transformative projects. In short, attempting to comprehend the civic mission of universities without acknowledging the implications of transversal competencies—both among academic staff and students—would be not only unwise but also naïve. These competencies are essential to promote high-quality learning, structure

the ideological framework of academic work, and provide greater opportunities for graduates to access the labor market.

Accordingly, we begin from the premise of the strategic significance of transversal competencies in higher education—both for fulfilling the civic mission of the university and for enhancing students' employability outcomes (Rego et al., 2022). Based on the aforementioned points, the core problem addressed in this study is the existence of a skills gap between the capabilities of university graduates and the actual demands of the labor market. Despite the theoretical emphasis on the role of University Social Responsibility (USR) in preparing a competent workforce, evidence indicates that many graduates lack the essential competencies for effective employability (Ahsan et al., 2025; Suyitno et al., 2025). Numerous studies reveal that employers consistently report a lack of readiness among new graduates for the world of work. For instance, Baker et al. (2017) reported that more than half of businesses consider graduates to be inadequately skilled. This situation is particularly critical as the global labor force, driven by technological advancements and industrial restructuring, requires continuous skills updating (Grimshaw, 2021).

The theoretical foundations can be articulated as follows:

- **University Social Responsibility (USR):** This is defined as a university's commitment to being accountable for its impacts on the human, social, and natural environment. It involves instilling values such as ethics, sustainability, and social commitment into the core processes of teaching and research (Gudonoga & Sporn, 2022).
- **Employability-Based Competence:** This refers to an integrated set of knowledge (cognitive), skills (psychomotor), and attitudes (affective) that enables an individual not only to gain employment but also to retain it and secure new employment when necessary (Zhao, 2024; Tushar & Sooraksa, 2023). These competencies extend beyond specialized knowledge to encompass soft skills such as communication, problem-solving, teamwork, and critical thinking.

The persistence of this gap leads to prolonged graduate unemployment, diminished labor productivity, heightened employer dissatisfaction, and ultimately, a wastage of national investments in higher education (Damoa et al., 2021). Failure to address this skills misalignment will result not only in negative individual consequences for students and graduates but also in economic stagnation, a decline in national competitiveness in the global arena, and the exacerbation of social inequalities (Herbert et al., 2020).

Consequently, the positive outcomes anticipated from addressing this problem are significant. The development and implementation of University Social Responsibility (USR) strategies focused on employability can lead to

higher graduate employment rates, enhanced productivity and innovation within industries, strengthened university-industry linkages, and, ultimately, the advancement of sustainable development and greater social justice (Lil Filio et al., 2024).

Numerous studies have explored various dimensions of University Social Responsibility (Hernández et al., 2024) and employability skills (Tushar & Sooraksa, 2023). Practical approaches such as Work-Based Learning (WBL) (Aoutsidi & Vanfichtit, 2024; Thapa, 2024) and the integration of social internship programs (Reig-Aleixandre et al., 2024) have been identified as effective strategies.

Despite a substantial body of literature, most research has sporadically addressed either the domain of 'University Social Responsibility' or that of 'employability skills.' The primary gap is the absence of an integrated, evidence-based model that specifically elucidates the strategic role of USR in the systematic development of employability-oriented competencies, while incorporating the perspectives of all key stakeholders (students, faculty, employers, and policymakers). Furthermore, the focus of most research has been on developed countries, highlighting a need for contextualized studies in other regions.

Therefore, the primary objective of this research is to propose a comprehensive conceptual framework of the role of University Social Responsibility in developing the competencies students require for employability. Utilizing a systematic review and thematic analysis, this study will identify and categorize these competencies and the practical strategies for their operationalization within the USR framework.

Thus, this study is expected to yield a deeper understanding of the mechanisms connecting USR and employability. It aims to provide an actionable roadmap for universities, policymakers, and curriculum designers to effectively integrate these two domains. This will represent a significant stride towards preparing students for the challenges of the 21st-century labor market, enabling higher education institutions to optimally fulfill their social responsibility towards societal development. In doing so, the study seeks to answer the following fundamental question: **"What competencies are necessary in the context of student employability as a social responsibility of higher education?"**

Significance and Necessity of the Research

In recent years, given the rising unemployment rate among university graduates and the increasing gap between the skills acquired in academia and the actual demands of the labor market, addressing the issue of universities' social responsibility in developing employability-based competencies has become an unavoidable necessity. According to reports published between 2019 and 2024, over 50% of employers globally have stated that graduates lack the necessary soft and technical skills for successful entry into the job market. If this issue remains unresolved, it will

not only lead to increased economic instability and reduced labor productivity but will also undermine public trust in the role of higher education as a driver of sustainable development. By presenting a comprehensive model of employability competencies based on a thematic analysis of systematic reviews from reputable international articles, this research not only transforms the traditional approach to university education but also provides practical tools for policymakers and universities to redesign curricula and prepare the future workforce. Considering the rapid technological advancements and structural changes in the labor market in Iran and the region over the past five years, as well as the impact of the COVID-19 pandemic on educational and employment practices, conducting this research between 2023 and 2025 within the context of Iranian higher education is deemed a strategic imperative.

Methodology

To investigate and analyze the development process and future-oriented trends of a specific research topic, the researchers adopted a targeted literature review methodology over a defined time frame (2023 to 2025) (Kuy & Elias, 2024). This study employed a systematic literature review (SLR) approach to explore the opportunities of artificial intelligence (AI) in higher education. Relevant articles were retrieved from Scopus and Web of Science databases using a set of predefined keywords. The review process adhered to the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) framework, which involves identification, screening, eligibility assessment, and final inclusion of literature. This research design is widely recognized and validated by scholars as a highly persuasive and rigorous methodological approach (Lund et al., 2023).

Inclusion criteria for selecting studies encompassed alignment of article titles with the research objectives, publication within the specified timeframe, and availability in the target languages (Persian and English). Conversely, duplicate studies were excluded from the analysis. Expert consultations were also conducted to validate the extracted codes and guide the coding structure. Document sampling was carried out through a screening procedure, during which research characteristics were systematically examined. This stage served as the scoping phase, addressing questions such as what is being studied, who is the target population, what are the temporal boundaries, and how is the study designed.

Criteria were defined based on the nature of the research questions; therefore, in addition to theoretical and review-based studies, empirical investigations were also included. Ultimately, out of the international studies published between 2020 and 2025, a total of 52 articles were selected for comprehensive review and analysis. Figure 1 illustrates the study selection process, and Table 1 presents the final list of selected sources.

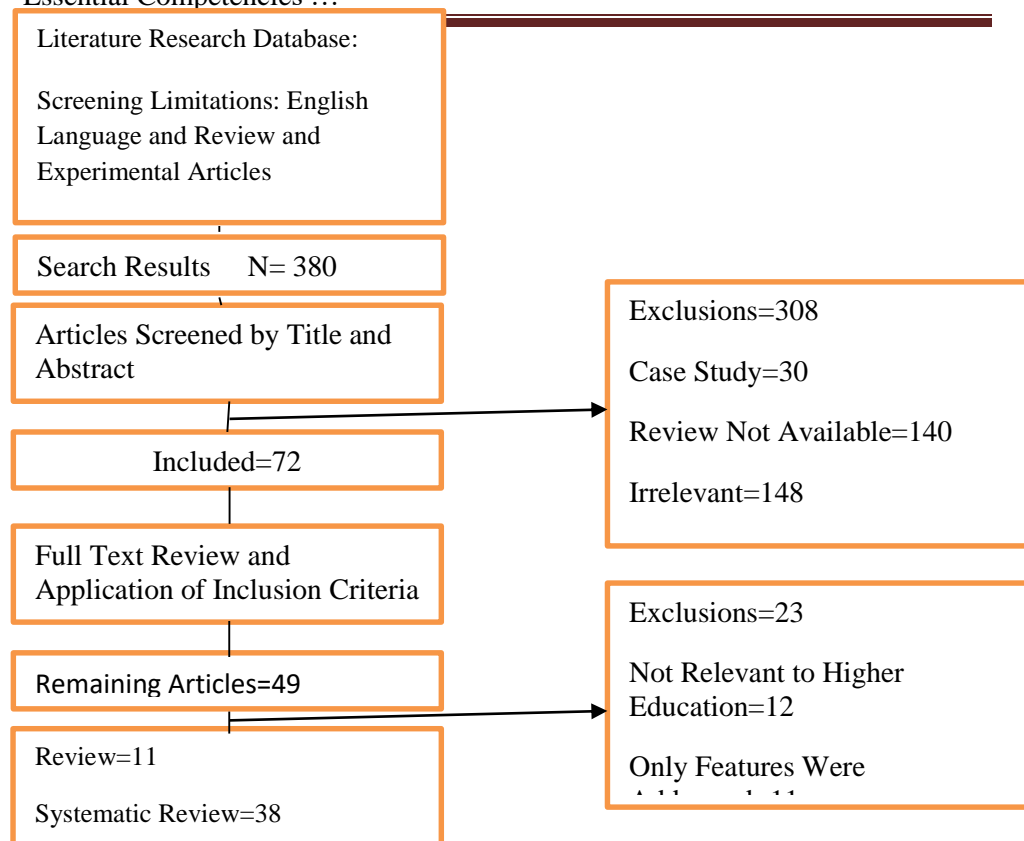


Figure 1. Research Selection and Screening Process

After the data were collected, the findings and results of the studies were extracted and analyzed separately. Through thematic analysis, the key topics and themes emerging from the literature were identified and examined in depth. The results of this literature review are presented below under the section titled "Research Findings."

Table 1 presents the final sources selected for the systematic literature review in the field of universities' social responsibility in developing the competencies required by students (i.e., employability-based competencies).

Table 1. Final Selected Sources for the Study and Referenced Codes in the Literature

author and year of publication	Title
Ahsan, S., Qureshi, N., & Rashid, A. (2025)	Examining Employability Skills Development in Universities: Perspectives, Challenges, and Responsibilities
Aliu and Aigbavboa (2023)	Reviewing the roles of extracurricular activities in developing employability skills: a bibliometric review
Autsadee, Y., & Phanphichit, T. (2024)	Exploring the maritime frontier: Unveiling the transformative power of work-based learning (WBL) in maritime education and training
Amish, M. (2024)	Enhancing workplace skills through work-based learning in engineering education
Bolton-King (2022)	Student mentoring to enhance graduates' employability potential

Chan and Luk (2022)	Academics' beliefs towards holistic competency development and assessment: a case study in engineering education.
Chigbu and Nekhwevha (2022)	Academic-faculty environment and graduate employability: variation of work-readiness perceptions
Damoah et al. (2021)	Does higher education equip graduate students with the employability skills employers require? The perceptions of employers in Ghana
Ebekozien et al. (2021)	An appraisal of generic skills for Nigerian built environment professionals in workplace: the unexplored approach
Emblen-Perry (2022)	Auditing a case study: enhancing case-based learning in education for sustainability
Fantinelli, S. et al.(2024)	Bridging the gap between theoretical learning and practical application: A qualitative study in the Italian educational context. Education Sciences
Gallardo-Vázquez et al. (2024)	Corporate social responsibility and sustainable development goals in higher education: a literature review from
Gilbert et al. (2022)	Working up to work: perceived employability of students commencing a project management degree
Godonoga, A., & Sporn, B. (2022)	The conceptualisation of socially responsible universities in higher education research: a systematic literature review
Herbert et al. (2020)	Graduate employability, employment prospects and work-readiness in the changing field of professional work
Husain et al. (2025)	A systematic literature review on formulating the employability skill set for entry-level building surveyors.
Islam (2022)	Industry 4.0: skill set for employability. Soc Sci Humanit Open
Karlsson, T. L. (2024)	Adults between school and working life. Studies in the Education of Adults
Khodeir LM, Nessim AA. (2020).	Changing skills for architecture students employability: analysis of job market versus architecture education in Egypt. Ain Shams
Kleckner MJ, Butz NT. (2022_	Developing Entry-level communication skills: a comparison of student and employer perceptions. Bus Prof Commun
Khoo et al. (2020)	Employer and academic staff perceptions of science and engineering graduate competencies.
Ismail SN, Ramli A, Aziz HA. (2021a).	Influencing factors on safety culture in mining industry: a systematic literature review approach.
Kogler, R., Vogl, S., & Astleithner, F. (2024)	Plans, hopes, dreams and evolving agency: Case histories of young people navigating transitions
Lan (2022)	Evaluating employers' demands for university graduates' legal English proficiency in employability
Lawani et al. (2021)	Exploring emotional intelligence and conflict management styles in Dominican Republic construction industry
LealFilho et al(2024).	The added value of partnerships in implementing the UN sustainable development goals.
Li, T., Tien, H.-L. S., & Wang, J. (2024)	Academic satisfaction and meaning in life: The mediating roles of personal growth initiative and career adaptability
Liao, M., Xie, Z., Ou, Q., Yang, L., & Zou, L. (2024)	Self-efficacy mediates the effect of professional identity on learning engagement for nursing students in higher vocational colleges: A cross-sectional study
Lim et al.(2025)	Bridging theory and practice: Implementing work-based learning in Malaysian higher learning institutions.
Marwa Ahmed El-Sayed et al(2024)	An integrated framework for techno-enviro-economic assessment in nanogrids

McCord et al. (2021)	Construction education needs derived from industry evaluations of students and academic research publications.
Miller et al. (2022)	Digital micro-credentials in environmental science: an employer perspective on valued evidence of skills
Mokhtar et al.(2024)	Stakeholders perspectives on work-based learning (WBL) implementation in Malaysia: A review.
Moldovan (2020)	A tool for continuous evaluation of competences and approaches to employment support. Procedia Manuf.
Reedy et al. (2020)	Improving employability skills through non-placement work-integrated learning in chemical and food engineering: a case study
Saleh and Lamsali (2020)	Fundamental general skills and engineering skills as an important skills for engineering graduates employability: a fundamental study
Satpathy et al. (2020)	A study on the new design thinking for industrial revolution 4.0, requirements and graduate readiness. Rupkatha
Shillie, P. N., & Nchang, N. N. (2023)	Influence of employee soft skills on job performance. Business Perspective Review
Stephens, M. (2024)	Navigating post-college career paths: Perspectives on career identity and self-efficacy from autistic alumni [Doctoral dissertation
Struck, P. (2024).	Vocational identity–relevance and development in the VET system.
Succi and Canovi (2020)	Soft skills to enhance graduate employability: comparing students and employers' perceptions. Stud High Educ
Suyitno, S et al. (2025)	The effect of work-based learning on employability skills: The role of self-efficacy and vocational identity
Thapa, H. S. (2024)	Development of employability skills through work-based learning.
Tsirakas et al. (2020)	The gap in soft skills perceptions: a dyadic analysis
Tushar, H., & Sooraksa, N. (2023)	Global employability skills in the 21st century workplace: A semi-systematic literature review.
Vaz-Serra and Mitcheltree (2021)	Understanding the key master of construction project management graduate competencies required to meet industry needs in Australia
Yong et al.(2024)	Students' perception of non-placement work-integrated learning in chemical engineering: Work-related skills towards the post-pandemic future
Zaheer et al. (2021)	Understanding the key competencies of market-ready building surveying graduates from employers' perspectives.
Zhao, Z. (2024).	Theoretical and practical exploration of work-based learning curriculum with a case study. Vocation, Technology and Education

Research Findings :

A review of the literature reveals that employability is more appropriately defined as an individual's capacity to obtain, retain, and, if necessary, secure new employment. This definition encompasses a broad range of competencies, including both technical and soft skills (Zhao, 2024). In the present study, employability skills are conceptualized as assets in the form of “knowledge” (cognitive), “skills” (psychomotor), and “attitudes” (affective), as well as the manner in which these assets are applied and presented to employers and within the labor market. Given the increasing

prevalence of the term "employability," researchers have noted that previous experts across various industries have defined employability skills differently, depending on their contextual frameworks, goals, and business environments.

According to Romiszowski's theory of skill development (Stephens, 2024), skills can be categorized based on their nature into several domains. These include intellectual skills, which pertain to cognitive abilities; psychomotor skills, which involve physical functions; personal skills, which relate to emotional competencies; and interpersonal skills, which concern interactions with others. This classification aligns with the definition of employability skills adopted in the present research, which refers to individuals' assets in terms of "knowledge" (cognitive), "skills" (psychomotor), and "attitudes" (affective).

An individual's specific knowledge and understanding are closely associated with the cognitive domain (knowledge). The psychomotor domain (skills) corresponds to job-related capabilities (functional skills), while the affective domain (attitudes) pertains to fundamental behaviors and dispositions toward collaboration within a workplace setting. In this study, "knowledge" refers to the information a graduate possesses in a specialized field such as building surveying, whereas "skills" denote the capacity to perform a particular physical or cognitive task. "Attitudes," in this context, relate to the emotional dispositions that graduates exhibit toward specific activities.

Based on the review of existing studies and as presented in Table 1, the extracted codes illustrate the final sources selected for the systematic literature review concerning the role of universities' social responsibility in developing competencies required by students—competencies rooted in employability.

Table 2. Extracted Codes and Their Sources Regarding the Role of Universities' Social Responsibility in Developing the Employability-Based Competencies of Students

Source	Extracted Competencies
Chigbu and Nekhwevha (2022) Shillie, P. N., & Nchang, N. N. (2023)	Employability, problem-solving, communication, teamwork, adaptability
Chan and Luk (2022) Kogler, R., Vogl, S., & Astleithner, F. (2024)	Holistic competence, willingness to learn, creativity and innovation, and ICT skills
Emblen-Perry (2022) Suyitno, S et al. (2025) Tushar, H., & Sooraksa, N. (2023).	Cognitive skills, analytical/critical thinking, integrity, and interpersonal skills
Kleckner and Butz (2022) Struck, P. (2024).	Core competencies, self-esteem, leadership, planning, and organization

Miller et al. (2022) Li, T., Tien, H.-L. S., & Wang, J. (2024)	Professional competencies, self-management, accountability, positive attitude and behavior, motivation, and time management
Lan (2022) Shillie, P. N., & Nchang, N. N. (2023)	Employer Requirements, Information Management, Basic Literacy and Numeracy Skills, Decision Making
Islam (2022) Liao, M., Xie, Z., Ou, Q., Yang, L., & Zou, L. (2024)	Employment Skills, Professionalism, Career Planning, Socialization, Negotiation, Personal Appearance, and Presentation
Bolton-King (2022) Stephens, M. (2024) Stephens, M. (2024)	The employability of graduates, academic skills, networking, goal-setting, diligence, and reliability.
Gilbert et al. (2022) Miller et al. (2022) Li, T., Tien, H.-L. S., & Wang, J. (2024)	Perceived Employability, Self-Awareness, English Communication Skills, Customer Service
Ebekozien et al. (2021) Shillie, P. N., & Nchang, N. N. (2023)	General Skills, Entrepreneurial Skills, Work Knowledge, Emotional Intelligence, Personality
McCord et al. (2021) Fantinelli, S. et al.(2024)	Skills, independent working, commitment, and the ability to influence.
Damoah et al. (2021) Zhao, Z. (2024).	Employability Skills, Self-Discipline, Technical Skills, Practical Experience, Skill Application, Loyalty
Lawani et al. (2021) Husain et al.(2025)	Essential Skills, Passion/Enthusiasm, and Respect for Others
Aliu and Aigbavboa (2021) Liao, M., Xie, Z., Ou, Q., Yang, L., & Zou, L. (2024)	Business awareness, the ability to make judgments, sales skills, and the enhancement of communication skills lead to higher job performance.
Zaheer et al. (2021) Stephens, M. (2024) Zhao, Z. (2024).	The utilization of modern tools, the application of academic knowledge, dedication, and psychological competence.
Vaz-Serra and Mitcheltree (2021) Chan and Luk (2022) Kogler, R., Vogl, S., & Astleithner, F. (2024)	The key competencies, cognitive abilities, work readiness, professional identity, and vitality
Satpathy et al. (2020) Suyitno, S et al. (2025)	The demand of employers, collaboration, self-promotion, political awareness, and common sense
Moldovan (2020) Zhao, Z. (2024).	Sense of humor, the ability to cope with pressure, and the sharing of information.
Stephens, M. (2024) Husain et al.(2025)	Competencies, Coaching, Mentoring, and Providing Feedback
Khodeir and Nessim (2020) Zhao, Z. (2024).	Employment Skills, Opportunity Creation, Strategic Thinking, and Personal Growth Skills
Khoo et al. (2020) Ahsan, S., Qureshi, N., & Rashid, A. (2025)	Self-efficacy, resilience, physical fitness, safet
Aliu and Aigbavboa (2020) Karlsson, T. L. (2024)	Employment Skills, Accounting Skills, Secretarial Skills, Patience
Saleh and Lamsali (2020) Fantinelli, S. et al.(2024)	General Skills, Career Advancement, and the Design and Programming of Technology
Herbert et al. (2020) Thapa, H. S. (2024) Fantinelli, S. et al.(2024)	The skills of engineering, system analysis and evaluation, imaginative thinking, and quick responsiveness

Reedy et al. (2020) Liao, M., Xie, Z., Ou, Q., Yang, L., & Zou, L. (2024)	Employability, System Design, Experiments / Data Analysis
Husain et al. (2020) Karlsson, T. L. (2024)	Employability skills, the evolving concept of social responsibility, the influence of institutional and organizational factors, national policies and public budgeting, organizational strategies and incentives
Succi and Canovi (2020) Ahsan, S., Qureshi, N., & Rashid, A. (2025)	Employability Skills, the Transformation of the Concept of Social Responsibility, the Impact of Institutional and Organizational Factors, National Policies and Public Budget, Organizational Strategies and Incentives
Suyitno, S et al. (2025) Zhao, Z. (2024).	Soft Skills, Self-Efficacy, and Professional Identity in the Development of Employability Skills of Professional Students
Tsirkas et al. (2020) Karlsson, T. L. (2024)	Soft Skills, General Competence, and the Understanding of Soft Skills among Employees and Employers
Husain et al. (2025) Suyitno, S et al. (2025)	Soft Skills, Positive Self-Assessment of Social Skills, and Self-Learning
Godonoga, A., & Sporn, B. (2022)	The competencies, communication skills (functional work), and teamwork skills (functional work).
Gallardo-Vázquez et al. (2024) Suyitno, S et al. (2025)	Employability skills, practical experience, enhancement of employability potential, networking opportunities, real-world problem-solving skills, industry knowledge, professional development, and improved learning outcomes
Ahsan, S., Qureshi, N., & Rashid, A. (2025)	The employability, education, and workforce, the increasing institutional responsibility, and the need for further studies to bridge the gap in life skills education
Autsadee, Y., & Phanphichit, T. (2024)	General skills, problem-solving abilities (cognitive), leadership skills (functional performance), information technology literacy skills (applied practice), written communication skills (functional knowledge and technical competencies), (cognitive).
Shillie, P. N., & Nchang, N. N. (2023)	Competencies, Effectiveness, Professionalism, and Overall Career Advancement
Suyitno, S et al. (2025) Zhao, Z. (2024).	Employability, practical job skills, the provision of digitalization workshops, seminars, or online courses focused on the development of specific skills, as well as skills related to digital mapping tools and software applications.
LealFilho et al., 2024; Marwa Ahmed El-Sayed et al., 2024 and Bentil et al., 2024	Personal, interpersonal, managerial, and business skills, time management, conflict management, networking skills, information technology, and digital competencies
Suyitno, S et al. (2025) Karlsson, T. L. (2024)	Interpersonal, managerial, and business management, time management, conflict management, networking skills, and information technology
Lim et al.(2025) Chan and Luk (2022) Kogler, R., Vogl, S., & Astleithner, F. (2024)	Employability, professional skills among graduates, emotional awareness and management, the development of emotional intelligence, and the cultivation of a work ethic culture in the workplace
Mokhtar et al.(2024) Godonoga, A., & Sporn, B. (2022)	The development of knowledge (cognitive), skills (psychomotor), and attitudes (affective) of students

Yong et al.(2024)	Work Ethic and Business Skills, Ethical Responsibility, Work Ethics, and Professional Ethics
Zaheer et al. (2021)	
Thapa, H. S. (2024)	Internship programs, cooperative work experiences, apprenticeship programs, mentoring programs, industrial practices, voluntary services, and field trips in the workplace
Fantinelli, S. et al.(2024)	

Following a thorough re-examination, and the consolidation and integration of similar codes, a matrix-based format was ultimately employed to utilize patterns and establish a structured data network encompassing various themes and subthemes. After an in-depth review of the relevant literature, five principal themes emerged: Knowledge and Understanding (with one subtheme comprising four elements), Cognitive Skills (with one subtheme comprising eight elements), Functional Work Skills (with six subthemes comprising a total of 15 elements), Personal and Entrepreneurial Skills (including both personal and entrepreneurial competencies), and Ethics and Professional Skills (with one subtheme encompassing a single element). Collectively, these five themes resulted in the identification of 11 subthemes and 36 individual elements or competencies.

The findings offer a comprehensive overview of graduate employability skills, taking into account both current abilities and the potential for future employment in alignment with industry demands—positioned as an integral aspect of the social responsibility of higher education in any country. Moreover, the study aligns the identified employability components with established learning domains and the five clusters of learning outcomes specified within the Employability Competency Framework in Higher Education.

In other words, the matrix conceptualizes the university's social responsibility in enhancing students' cognitive and affective development and, ultimately, increasing societal effectiveness and efficiency through targeted educational interventions. Such outcomes can only be achieved through the university's strategic and effective planning to enhance students' individual, interpersonal, ethical, and professional skills—recognizing students as the future architects of society. The matrix visually represents the university's social responsibility in promoting the competencies required for student employability.

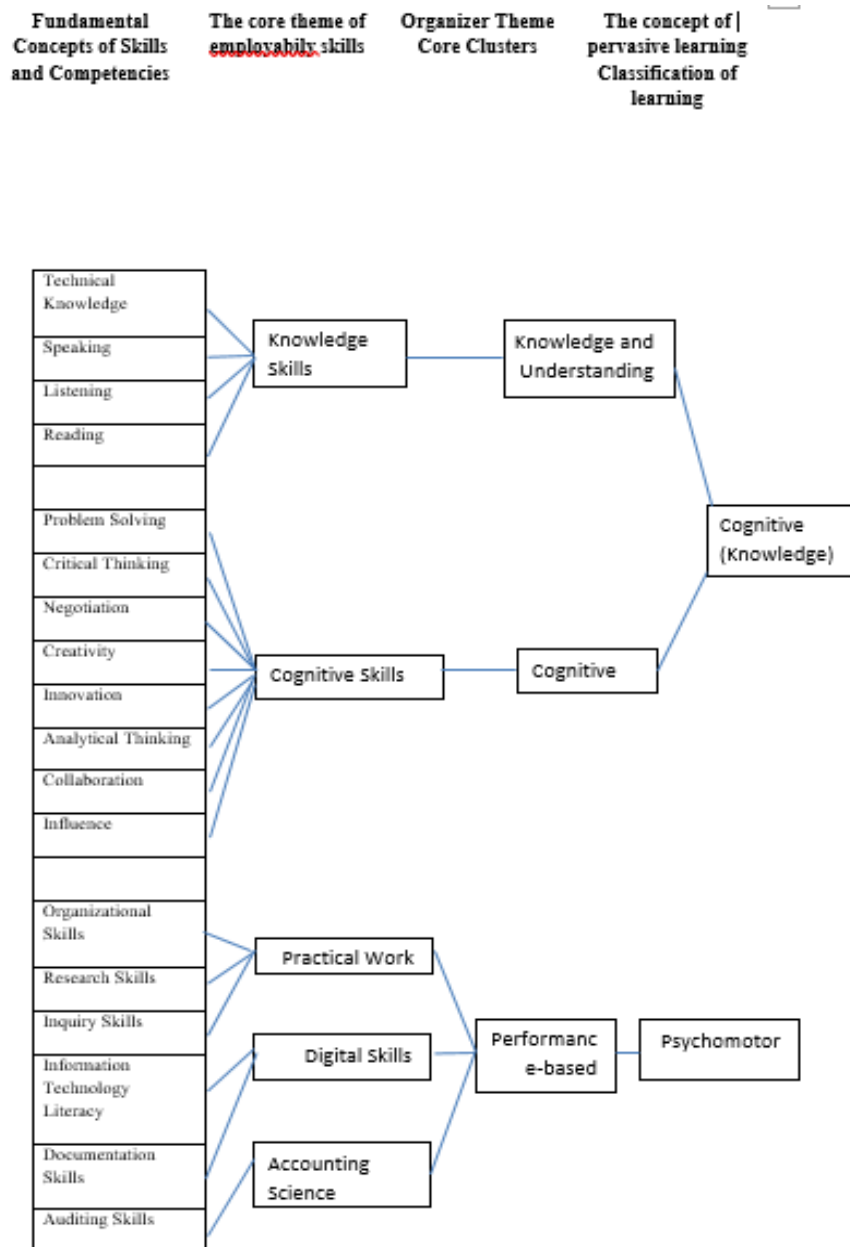


Figure 1 schematically illustrates the competencies required of students, specifically those related to employability

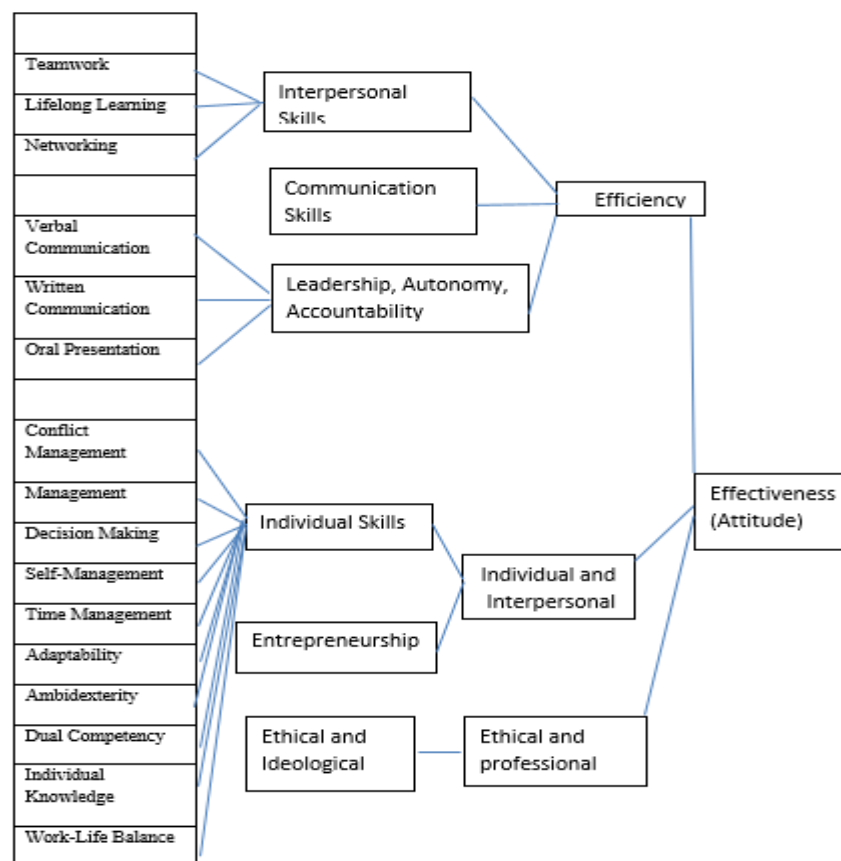


Figure 2. The University's Social Responsibility in Developing Employability-Based Student Competencies.

Knowledge and Understanding: The Cognitive Domain

A total of 27 studies have underscored the importance of knowledge and understanding in coping with high job demands. In this context, knowledge and understanding refer to a comprehensive grasp of a subject, academic discipline, or professional field, encompassing technical knowledge (18 studies), verbal communication skills (13 studies), listening skills (seven studies), and reading skills (three studies). The findings indicate that, during the recruitment process, employers consistently prioritize foundational knowledge skills—including reading, speaking, and listening—alongside technical knowledge. Zaheer et al. (2021) affirmed that graduates are expected to demonstrate substantial technical knowledge in areas such as building pathology, construction techniques, and building processes during hiring assessments. However, Hussain et al. (2025) found that many graduates lack technical knowledge, particularly regarding terminology related to building components and materials, construction

defects, and building pathology, despite these being core components of the program's intended learning outcomes. As a result, possessing knowledge coupled with deep understanding is of paramount importance. Cognitive knowledge of how to perform tasks, the ability to execute them independently, and an awareness of underlying processes all contribute to a comprehensive knowledge base. Knowledge accompanied by a profound understanding is inherently valuable and plays a crucial role in helping individuals secure and excel in employment. Thus, future employees must continuously acquire both foundational knowledge (i.e., reading, writing, listening, and speaking skills) and technical knowledge to adapt to evolving industrial operations and labor market demands.

Cognitive Skills: The Cognitive Domain

Bloom's taxonomy of educational objectives classifies knowledge and understanding alongside cognitive skills within the cognitive domain, which pertains to thinking processes. Singh (2020) argues that the cognitive domain encompasses knowledge and the development of intellectual skills, including comprehension, information application, and engagement with problems, procedures, and concepts that support the cultivation of intellectual abilities. As noted by Hariyanti et al. (2020), industry and labor markets demand that graduates demonstrate greater engagement in analytical and critical thinking—especially during the project management phase, where cognitive skills are essential for performing managerial roles. A total of 37 articles reported that employers primarily emphasize cognitive skills as a strategy for upskilling graduates. This emphasis led to the identification of eight sub-themes: critical thinking, influence, negotiation, collaboration, innovation, creative skills, problem-solving, and analytical thinking skills. Among these, 27 studies revealed that employers prioritized problem-solving as the most relevant skill, both currently and in the foreseeable future. Meanwhile, 17 and 13 studies, respectively, reported that industry values critical thinking and negotiation skills in response to high-demand roles and the rapid technological changes associated with the Fourth Industrial Revolution (4IR), which has fundamentally transformed the way we live and work. Influence (nine studies) and collaboration (eight studies) were also identified as other key competencies. However, only one study indicated that employers actively sought candidates with influencing skills. According to Emblen Perry (2022), influencing skills refer to the ability to affect others' actions, behaviors, and opinions. A competent leader and entrepreneur must possess these skills to perform effectively and manage business operations. Researchers believe that influencing skills will become one of the core cognitive abilities for career advancement in the next five years.

The Psychomotor and Affective Domains

The practical work skills identified in this study are classified into two main domains: the **psychomotor domain** and the **affective domain**, as illustrated in Figure 1. The psychomotor domain encompasses practical

work skills, digital competencies, and numeracy skills, whereas the affective domain comprises interpersonal abilities, communication skills, and leadership independence and responsibility competencies. As noted by Yang et al. (2024), cognitive understanding forms a foundational basis for motor skill activities. In this context, motor skills refer to those within the psychomotor domain, involving physical functions and actions such as touching, manipulating, or moving an object—activities that necessitate repeated practice and engagement.

Tapa (2024) argues that universities should prioritize the development of practical skills (psychomotor skills) by providing authentic hands-on experiences rather than placing excessive emphasis on end-of-term written examinations. A total of 52 studies highlighted functional work skills as essential competencies that educational institutions must prioritize. Within this broader category, six sub-themes were identified: practical skills (e.g., research, organization, investigative abilities), digital skills (e.g., IT literacy, documentation), numeracy/accounting skills, interpersonal skills (e.g., teamwork, networking, lifelong learning), communication competencies (both oral and written), and leadership skills (e.g., management, conflict resolution, decision-making).

A comprehensive review of the existing literature indicates that a substantial number of employer-preferred candidates exhibit strong verbal communication skills (as reported in 40 studies), teamwork (31 studies), leadership abilities (23 studies), IT literacy (19 studies), international communication competencies (19 studies), interpersonal abilities (13 studies), lifelong learning (9 studies), and conflict management skills (8 studies). Five studies addressed organizational and numeracy skills respectively, while four studies each focused on research capabilities, digital literacy, documentation competencies, and networking skills.

Notably, only Zaheer et al. (2021) explicitly discussed the importance of research skills in enhancing the competency and competitiveness of building surveyors. Consequently, functional work skills within the affective domain, particularly communication (both oral and written), interpersonal skills (especially leadership), and team collaboration, appear to hold significant value. Understanding emotional learning processes and the classification of affective learning, as proposed by Allen and Friedman (2010), may provide a valuable framework for embedding professional values within educational practice.

Nonetheless, challenges persist in ensuring that graduates can produce clear and concise reports—a skill often obscured by the specialized terminology characteristic of academic literature, as also highlighted by Zaheer et al. (2021).

Personal and Entrepreneurial Skills: The Affective Domain

Numerous studies have examined the role of personal and entrepreneurial attributes in relation to graduates' employability skills and

performance. Within this broader theme, two sub-themes have emerged: personal skills (highlighted in 27 studies) and entrepreneurial skills (emphasized in 6 studies). The sub-theme of personal skills encompasses six key elements of employability: self-management (16 studies), time management (13 studies), adaptability (12 studies), resilience (4 studies), self-awareness (3 studies), help-seeking behavior (1 study), and work-life balance skills (1 study). These findings indicate that although work-life balance skills have received limited attention thus far, they are expected to gain greater importance as graduates increasingly strive to harmonize the demands of professional and personal life. This aligns with the United Nations Sustainable Development Goal (SDG) 4, particularly target 4.7, which aims to ensure that all learners acquire the knowledge and skills needed to promote sustainable development, sustainable lifestyles, human rights, a culture of peace and non-violence, among other objectives.

The importance of time management skills is repeatedly emphasized, underscoring their critical role not only in enhancing job performance but also in facilitating career advancement opportunities. Similarly, Lim et al. (2024) advocate for the integration of entrepreneurship and business education into university curricula. They propose that higher education institutions can achieve this by involving successful entrepreneurs in delivering motivational talks, organizing business-themed conferences and symposiums, offering lectures on financial tools and accounting principles, and initiating professional career counseling services.

However, within this sub-theme, the only specifically cited skill is entrepreneurship itself. This skill was previously given limited emphasis, largely because employers believed that graduates were not yet prepared to transition from job-seeking to job-creation. According to Lim et al. (2024), employers in Malaysia's electrical and electronics engineering sectors attributed the least value to entrepreneurial skills, primarily due to students' lack of motivation to start their own ventures. Furthermore, entrepreneurship requires a distinct set of personal skills in combination with various other forms of knowledge, cognitive abilities, and functional competencies in core business domains—such as innovative leadership, time management, networking, creative thinking, technical expertise, and communication.

Ethics and Professionalism: The Affective Domain

Twenty-two studies have underscored the significance of ethics and professional practices in relation to employability. Among the competencies explored, only one sub-skill directly addresses this domain—namely, ethical and professional skills. Various studies have referred to this concept using different terminologies such as work ethics and business skills (Aliu & Aigbavboa, 2020), ethical responsibility (Kho et al., 2020), work ethics (Khadir & Naseem, 2020), and professional ethics (Suchi & Conway, 2020; Zaheer et al., 2021). Zaheer et al. (2021) describe ethics and professionalism as the understanding of professional ethical standards as endorsed by the Royal Institution of Chartered Surveyors (RICS), and the ability to adhere

to these standards in daily practice. Meanwhile, Liao et al. (2024) define ethical responsibility as an awareness of professional values and principles, as well as the consideration of their implications for others. Stephens (2024) asserts that professional ethical conduct entails carrying out daily responsibilities in accordance with professional principles and ethics. This includes continuous development, competencies, knowledge, and experience (Fantinelli et al., 2024). Amish (2024) found that professional ethical responsibility functions as a bridge between core business competencies and sustainable scholarship. Individuals who demonstrate professional maturity—regardless of their educational level—benefit from employers' positive perceptions of their employability (Carson, 2024).

Discussion and Conclusion

Employability has become an increasingly prominent theme in higher education and academic literature in the 21st century. Over the past few decades, numerous studies have been conducted to rigorously examine the importance of higher education in developing societies and economies. Within this context, universities, as part of their social responsibility, play a vital role in shaping the lives of individuals. The present study was conducted with the aim of exploring the social responsibility of universities in developing the competencies required by students—namely, employability-based competencies.

Overall, the results identified five main thematic categories across the reviewed literature: (1) Knowledge and Understanding (with one subtheme comprising four elements), (2) Cognitive Skills (with one subtheme comprising eight elements), (3) Functional Work Skills (with six subthemes comprising fifteen elements), (4) Personal and Entrepreneurial Skills (including sub-skills and entrepreneurial abilities), and (5) Ethical and Professional Skills (with one subtheme comprising a single element). These five primary themes collectively resulted in 11 subthemes and a total of 36 competency elements and skills. The findings thus present a comprehensive overview of graduates' employability skills, addressing both their current capabilities and their potential for future employment in alignment with labor market demands, thereby highlighting higher education's social responsibility in each country.

Consistent with the findings of this study, Valencia-Arias (2024) states that the primary mission of universities is to educate, train, and transform individuals into professionals while disseminating knowledge. However, these authors also emphasize the university's broader impact on personal development, the generation of positive societal effects, and the implementation of a comprehensive vision to meet community needs and improve societal well-being. Similarly, Laran (2017) asserts that the social responsibility of universities introduces new challenges for students, enhancing their roles within society and raising the quality of education by fostering human talent. According to this view, not only is academic

knowledge essential, but so too is intrinsic knowledge. This underscores the notion that universities today are regarded as platforms for personal development, as they offer strategies for ethical and responsible conduct.

Moreover, El-Masri et al. (2020) argue that in the current era, preserving ethical values requires educational institutions and organizations to adopt behaviors that safeguard social, cultural, and environmental concerns. University social responsibility has increasingly prioritized incorporating management development into curricula, educating leaders through teaching, research, and leadership initiatives, alongside other sustainable activities over time. As stated by Paula Palacios Garay et al. (2021), universities must "educate individuals in such a way that they become highly qualified professionals for both work and civic life, enabling students to fully develop their capacities with a sense of social responsibility." Accordingly, university social responsibility involves managing its impacts on the human, social, and economic environment, with a strong commitment to fulfilling societal expectations in Peru. Studies promote the implementation of university social responsibility as an essential means for fostering values and principles and for engaging the entire academic community (Valais, 2008).

The findings of this research can also be interpreted through the lens of institutional theory, which focuses on analyzing the social and economic behavior of organizations. Regardless of geographic context, institutional theory emphasizes aspects of institutions where norms and institutional rules are formed to attain legitimacy, acceptance, or credibility through organizational strategies or practices. Institutional theory thus provides a suitable foundation for studying behavior within institutional frameworks. It operates along two main axes: first, stakeholders within the university context—despite the institutional differences from other types of organizations—can be approached using stakeholder theory, as universities are social systems strongly oriented toward legitimacy and social acceptance. This is closely aligned with the concept of institutional isomorphism in higher education systems.

Institutional change is driven by three mechanisms: coercive (stemming from legal frameworks), mimetic (emulating effective practices), and normative (standardizing practices that confer institutional legitimacy). These forces influence organizational success or failure and encompass three pillars: regulatory (laws, controls, and sanctions), normative (values, norms, and roles), and cognitive (rules linked to behavior). Currently, few management systems specifically address university social responsibility, particularly concerning methodologies and assessment approaches that ought to be embedded in modern education. In response to new challenges, universities have begun implementing management frameworks that support the development of university social responsibility. These frameworks aim to sensitize students to social issues, thereby addressing societal demands and contributing to the sustainable development of their communities (Paula Palacios Garay et al., 2021).

In recent years, numerous significant studies have addressed the concept of university social responsibility (USR). However, there remains a lack of clarity regarding the precise nature of a university's responsibility to society and the extent to which it is accountable for nurturing skilled and committed professionals through its educational processes. Therefore, it is imperative that universities develop a heightened sense of social awareness, engage with societal challenges, and contribute diverse ideas and resources for the public good (Dahan & Senol, 2012). In this context, USR emerges from the necessity of adopting a new model of learning and management that prioritizes knowledge and sustainable development applicable across all nations (Hernández, 2009).

Paula Palacios Garay et al. (2021) define university social responsibility as any initiative carried out in accordance with ethical principles and good governance, environmental respect, social commitment, and the promotion of civic values. According to UNESCO (2009), higher education must not only equip students with robust competencies for today and the future but also contribute to shaping ethical citizens committed to peacebuilding, human rights advocacy, democratic values, and sustainable development.

In this regard, Domínguez and Pinzón Lizaraga (2019) argue that universities, in their pursuit of societal transformation, must continuously seek and refine mechanisms that enhance educational practices aligned with this mission. Some of the mechanisms identified to facilitate this transformation include the design, implementation, and evaluation of programs and policies related to USR.

Ibarra et al. (2020) consider USR as a transversal educational axis integrated across all academic programs. Regardless of the field of study, curricula should encompass ethical reflections on the relationship between humans and their natural and social environments, strictly adhering to the principles of human rights. Accordingly, when social responsibility is sustainably and consistently embedded within university management, it ensures the institution's longevity, as it becomes not only a structural element of the university but also an integral part of its daily operations (Paula Palacios Garay et al., 2023).

University social responsibility must reflect the institution's commitment to the entities and stakeholders with whom it interacts, based on a value system that upholds human rights and sustainable development in the professional education of students. As noted by Ríos and González (2016), universities perceive their mission as the generation of diverse forms of knowledge aimed at educating professionals capable of addressing national needs. This mission is controversial in light of the broader objective of achieving access to higher education. However, its ultimate aim is to foster the formation of ethical professionals, enhance the professional quality of individuals with regard to personal growth, and educate individuals committed to helping others.

A well-prepared professional should be capable of responsibly fulfilling the duties of their chosen career, offering assistance indiscriminately—regardless of gender, religious beliefs, or economic background—and participating in social activities that promote integrated human development. The goal is for academic communities to evolve in their interactions with society and in their social engagements.

Ultimately, university social responsibility should be viewed as a transversal axis permeating all subjects and activities related to the comprehensive formation of university students. Its primary objective is to contribute to student development through a value-based approach to teaching, research, and internal governance. In conclusion, it may be asserted that universities hold a profound responsibility toward their students, as the knowledge and values imparted during their education will be reflected in their professional conduct. Consequently, students will be equipped with the necessary skills to engage respectfully with real-life situations, advocate for their rights, and contribute to sustainable development.

In response to the research question, "What competencies are required for student employability as a dimension of social responsibility in higher education?" the findings of this study indicate that the social responsibility of universities toward student employability necessitates the development of five key competency domains:

1. **Knowledge and Understanding (Cognitive Domain):** Including technical knowledge and foundational skills.
2. **Cognitive Skills:** Such as critical thinking, problem-solving, creativity, and innovation.
3. **Functional Skills (Psychomotor and Affective Domains):** Including communication, teamwork, leadership, and digital literacy.
4. **Personal and Entrepreneurial Skills:** Such as self-management, resilience, and the ability to adapt to dynamic work environments.
5. **Ethics and Professionalism:** As a foundation for responsible and sustainable conduct in the workplace.

These competencies not only ensure students' professional readiness but also reinforce the university's role as an institution accountable for the sustainable development of society. Therefore, by integrating these dimensions into curricula and practical experiences, higher education can fulfill its social responsibility toward enhancing student employability.

Overall, based on the findings, it can be inferred that the value and effectiveness of higher education are primarily demonstrated through two

key sources: governments and employers (Tushar & Suraksha, 2023). Consequently, employers hold high expectations of universities and their graduates. A recent empirical study by Bischof and Massin (2023) confirms that the competencies required of graduates encompass areas such as care, continuous improvement, lifelong learning, governance, influential talent, personal safety awareness, accident prevention, risk management, situational awareness, and systems thinking. The associated soft skills include a focus on personal safety, commitment to a drug-free environment, ethical and compliance-based behavior, adherence to governance standards, value orientation, proficient networking, preventive orientation, conscientiousness, and a sense of shared responsibility. These attributes can be developed through practical workplace experiences and self-development interventions.

The implications of this study are significant for educators, employers, and policymakers worldwide. The findings can assist educators in aligning curricula and teaching methodologies with employability skills that employers seek in recent graduates. By identifying the specific skills most in demand, educators can ensure that their students are well-prepared for the modern workplace and have the best opportunity to secure employment after graduation. Additionally, employers can utilize these findings to reshape their recruitment and training processes, targeting skills that are essential for success in the 21st-century work environment.

The study's outcomes can also inform policymakers in the design of strategies and programs aimed at supporting workforce development. Governments can leverage the insights from this research to guide the creation of initiatives that promote employability and job readiness among youth, and to support the development of industries that require the identified skillsets. Furthermore, the results can be employed by students, prospective job seekers, and career counselors to pinpoint the skills necessary to enhance employability and job readiness. This can help them concentrate on the skills employers prioritize and make informed decisions about further education and training. Educators and decision-makers can use the identified skill framework to design curricula, global employability initiatives, and related policies to better prepare graduates for the global labor market.

A semi-systematic review of the literature presents an international framework of employability skills published over the past five years. This review outlines similarities, variations, and unique skillsets that have emerged during this period of rapid technological advancement. It also offers a historical overview and multiple perspectives on the definition of employability skills. Such information is valuable to current students, academic institutions, potential employers, and policymakers. Moreover, this study suggests that the development of an employability scale based on employer expectations could serve as a valuable tool for identifying and addressing mismatches between employer demands and graduate competencies. Emerging economies are likely to experience the impact of global employment challenges more intensely, as the global working-age

population is projected to rise concurrently. Simultaneously, a decline in employment opportunities is plausible. Thus, students and recent graduates must equip themselves with the requisite skills and competencies, in addition to academic qualifications, to succeed in an increasingly competitive labor market.

Universities and organizations must collaborate to ensure that new graduates possess the essential skills. Educational policymakers should prioritize curriculum development and the modernization of teaching strategies in accordance with organizational expectations. Addressing industry-specific employability skill needs can provide targeted insights for educators and policymakers, enabling them to align educational programs and initiatives more effectively. At the same time, businesses must assist academic institutions in preparing graduates for the workforce—individuals who will eventually become the backbone of their respective industries. Further research should pursue longitudinal studies to track the evolution of employability skills over extended periods, offering deeper insights into how these skills align with the changing dynamics of the workplace.

This study is exclusively based on the analysis of texts published between 2023 and 2025. Consequently, the findings may not encompass all perspectives, unpublished research, or studies available in other databases. Furthermore, given the qualitative nature of the systematic review, the generalizability of the results to other cultural-educational contexts requires caution and warrants more extensive investigations. In addition, this study primarily relies on an analysis of employability skills published in English over a five-year period, shedding light on emerging trends. However, it may overlook valuable insights from non-English sources and recent developments. Therefore, exploring regional variations in the demand and supply of employability skills can illuminate the unique challenges faced by different geographic areas, thus aiding in the alignment of educational and training programs accordingly. A comparative analysis across cultures and countries may reveal intercultural shifts in employability skill priorities and their implications, contributing to the development of actionable strategies at a global level.

Undoubtedly, addressing the evolving landscape of employability skills in the wake of the COVID-19 pandemic and the future of work is a critical aspect of future research in this field. Recent global events have significantly accelerated the adoption of remote work, digital technologies, and automation. These changes are likely to have profound implications for the skills that employers seek in newly graduated individuals. Consequently, research should strive to link the findings of this study with emerging trends in the post-pandemic workforce.

Furthermore, examining the impact of emerging technologies, as demonstrated by the studies reviewed in this research, on the demand for employability skills and how they reshape skill priorities, is an area of significant importance. By addressing these areas, future research efforts

can contribute to a deeper understanding of the dynamic nature of employability skills, the shifting demands of the labor market, and the strategies required to bridge the gap between education and employment.

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