

A Study on the Influencing Factors of Students' Employability: A Systematic Literature Review

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ABSTRACT

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Purpose– This paper aims to explore the factors influencing students' employability by using systematic literature review, making a clear and systematic classification of the influencing factors, proposing a theoretical model according to the analysis of the data, which is useful for future research on students' employability and beneficial for all the stakeholders to make strategies to improve students' employability, thus alleviating the current employment problem.

Design/methodology/approach– The systematic literature review (SLR) was used in this paper. By July 2024, a comprehensive review of relevant literature was conducted through domestic and international electronic databases, such as Science Direct (Elsevier), Scopus, Wiley Online Library, Emerald Insight, SAGE Journals and China CNKI.

Findings– More than 3285 studies were reviewed, from which 12 studies were found analyzing the issue of factors influencing students' employability. The analysis explored the influencing factors from the three dimensions: influencing factors from the universities and colleges, influencing factors from the society and influencing factors from students themselves. And a theoretical model is proposed according to the analysis of the data.

Research limitations/implications– The main implication lies in providing a systematic classification of the influencing factors on students' employability and proposing a theoretical model of it. Meanwhile, the results can be useful for conducting future research on students' employability, and make a comparative analysis of the factors influencing students' employability, which will be conducive

to making a more comprehensive analysis on how to improve students' employability and make useful strategies, thus solving the employment problem.

Originality/value— The SLR conducted is considered as novelty in the first attempt to present past studies comprehensively on the classification of factors influencing students' employability and exploring the theoretical model of factors influencing students' employability.

Keywords: Systematic Literature Review, Students' Employability, Influencing Factors, Theoretical Model

1. Introduction

As per general consensus put forward by different literature, employability is a core factor to higher education (Mawson and Haworth, 2018; Oliver, 2015; Wilks et al. 2017). Student employability is a central issue driving the mission of higher education institutions (Small et al. 2018). For stakeholders, enhancing graduate employability is often a priority in higher education (O' Leary, 2017). It has become a common practice for higher education institutions (HEIs) to embed employability expectations and to enhance student learning outcomes especially at undergraduate level (Fallows and Steven, 2000).

Student employability has attracted increasing academic attention in recent years, which requires the term “employability” to be understood thoroughly. Owing to the natural, political, economic, and external circumstances, concept of graduate employability is undergoing rapid changes (Hosain et al. 2023). In China, the concept of employability began in the 1990s, and it is highlighted under gradual popularization of higher education in the country (Chengying, 2022). According to Zhilin et al. (2019), student employability points toward the hidden potential and qualities gained by college students via quality training and practice, knowledge accumulation, and life experiences. Suleman (2018) views graduate employability as a composition of individual skills, their knowledge and the complex attributes they obtain from higher education, which can help them secure and maintain a profession or job. In addition to the skills in demand, employability also includes certain attributes and experiences amassed during higher education (Lundberg et al. 2021). Van (2006) argues that employability is individual application of competence along with acquiring essential work skills continuously so that tasks can be accomplished. It is also the ability to adapt to changes in labor market occurring internally and externally (Shahzad et al. 2019; Vermeulen et al. 2018). A growing literature on students' employability points to the inadequacy of student employability, from skill mismatch to lack of soft skills (Chiara and Magali, 2020; Mgaiwa, 2021). There is a gap between education outputs, organizational skills requirements, and the increasingly globalized regional labour market (Mishrif et al. 2023). According to Li (2017), the overall level of college students' employability is moderate, and the upward development trend of employability is not significant, and the innovation, teamwork, analysis, and self-management ability are the key factors restricting their improvement. Hence, it is in a great necessity to explore and make a clear classification of the influencing factors of students' employability, thus putting forward strategies accordingly, and providing a basic reference for the future study.

Meanwhile, there are previous studies that explored the influential factors in case of student employability by using quantitative and qualitative methods (Wang et al. 2023; Hosain et al. 2021; Pan, 2020; Fenta et al. 2019; Dania et al. 2014), and from different points of view, like Fenta et al. (2019) made an analysis of supply side factors influencing employability of new graduates. Zhang et al. (2021) determined the factors that affect the employability of nursing graduates from higher vocational colleges in Henan Province. However, there is a lack of suitable studies that capture maximum factors responsible for influencing employability of students. This study attempts to survey existing literature to explore the influential factors concerning employability of students so that a classification of these influencing factors can be made. This paper has considered literature available in Chinese and English language. It studied samples with undergraduate students, and made a clear list of the influencing factors of students' employability. Based on more than 12 papers from the search results, influencing factors from the perspective of the university and college, the society, the students and so on have been explored. Besides that, this paper also targets filling the research gap for informing future research. The study aims to help university and college managers to develop systematic strategies to improve employability for graduate students.

2. Methodology

Since the systematic literature review method makes literature research more scientific and rigorous, and shows increasing evidenced advantages applicable for practical and academic fields, which has developmental value for research topics, research subjects and research method system itself (Huang et al. 2017). SLR is a technique useful for reducing subjectivity possessed by authors via an objective baseline that helps to exclude irrelevant studies. This can be a reason why the unavailability of systematic techniques led the traditional reviews to be exposed to author subjectivity (Tranfield et al. 2003). Therefore, this paper is a SLR aimed at exploring the factors responsible for influencing students' employability. Driven by Akosah-Twumasi et al. (2018) and Braun and Clarke (2006), this paper employs thematic analysis as its method of identification, screening, eligibility, and inclusion based on the gathered data. Thematic analysis is usually applicable for developing grounded theory but it is useful for this paper because it undertakes exploration of themes on students' employability as per existing literature (Arslan, 2020). The literature on factors influencing students' employability has been analyzed and classified. For this study, students refer to undergraduates who are in the last year of their college and university and are going to get a bachelor's degree and graduate soon. Hence, articles related to graduating students have received more focus.

For the process of review, it is not to confine to the literature of a specified duration, and hence, literature available till May 2024 has been considered. It is not to limit the time horizon because few research is available on factors influencing students' employability. In fact, it has been observed that the first research paper on factors influencing students' employability was published in 2008 (Pittaway and Hannon, 2008). In terms of literature retrieval, the researcher uses commonly used databases, such as Emerald Insight, SAGE Journals, ScienceDirect (Elsevier), Scopus, Wiley Online Library, and China CNKI, and the searching time is up to May 2024. The English retrieval strategy is: "Key Word = 'college

students or university students or graduates or senior students' and 'influencing factors or affecting factors' and 'student employability or student employment ability'. The Chinese literature search strategy is: "关键词 = '大学本科毕业生或本科毕业生或大四学生' 和 '就业能力或可就业能力或就业的能力' 和'影响因素或制约因素'", and the literature search category is "Peking University core, CSSCI, and CSCD ". Other search conditions are not restricted, and finally, 3285 literature was retrieved. Secondly, after duplicates, retracted publication removed, 3251 literature was left. In terms of literature screening and inclusion criteria, the following criteria are adopted: ① In the aspect of research subject, it focuses on the field of higher education, especially the employment ability of college graduates, excluding the literature of company employees outside higher education; ② focuses on the influencing factors of employment ability, excluding the literature research on the connotation, definition and structure model; ③ in the research object, select the literature that can obtain the full text. In addition, the literature and dissertations that met the inclusion criteria but were not retrieved were included together by the "snowball" method, and through review and screening, a total of 12 valid documents (including dissertations) were obtained, and Figure 1 shows the specific screening process. Through studying the literature samples one by one, the paper analyzes different dimensions of factors influencing students' employability.

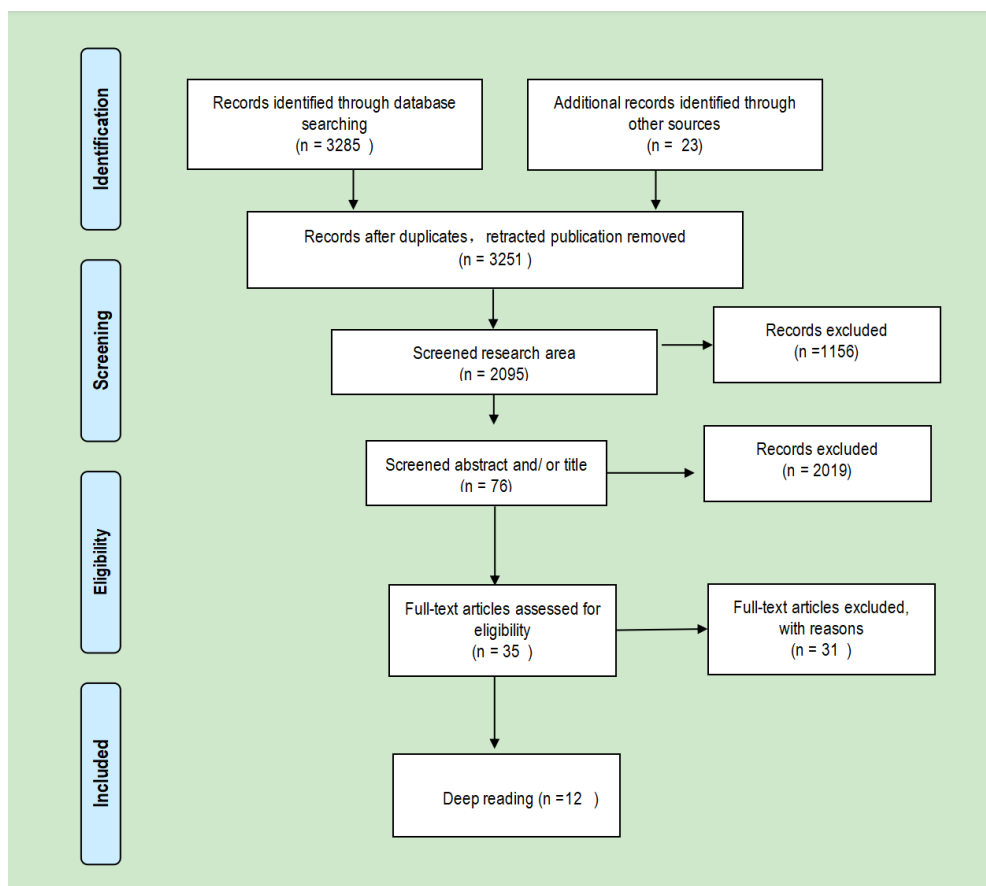


Figure 1 Prisma flow diagram of the undertaken systematic review process

3. Findings

A thematic analysis was conducted on the 12 articles. The aim of this SLR is to identify factors affecting the employability of graduates and then categorize them in different criteria. The 12 selected articles were carefully reviewed again to clearly explore the factors affecting the employability of the graduates. To have a clear understanding and a comparative study of the literature, a table regarding the author, the sample, methodology and factors influencing employability is made based on the selected literature. The review information is presented in Table 1.

Author	Sample	Methodology	Factors Influencing Employability
Suhailah Sahul Ahmid, Chia Chun Tiew, Melissa Ng Lee Yen Abdullah	395 vocational students from 5 vocational colleges in Malaysia	Quantitative correlational design, data collected through online surveys, Structural Equation Modelling (SEM) analysis	-Innovative characteristics (creativity, leadership, energy, risk-propensity) -Work readiness (personal characteristics, social intelligence, work competence) -Vocational self-concept (values, interests, and abilities)
Dawn Bennett, Elizabeth Knight, Ian Li	2,374 full-time university students	Quantitative study: Self-measure of study and career confidence Data analysis: t-tests, multivariate analysis	Presence of a hierarchical relationship between prior work experience and self-perceived employability, highlighting that prior work experience contributes to greater confidence in employability.
Thuy Thi Hai Ho, Van Hong Le, Duong Tuan Nguyen, Chi Thi Phuong Nguyen, Ha Thi Thu Nguyen	512 Vietnamese students (before commencing business internships); 322 of them after 4 months	Partial least square, Structural Equational Model analysis	Career development learning is important to enhance students' perceived employability.

Author	Sample	Methodology	Factors Influencing Employability
Ming-Yuan HSIEH, Muhammet USAK	Two groups of experts	<p>Cross-employment of two methods</p> <p>Quantitative analysis: Analytical Network Process (ANP)</p> <p>Qualitative analysis: Fuzzy Set Qualitative Comparative Analysis (fsQCA)</p>	Core teacher competencies systematically influence core student employability factors
Victoria Jackson, Vicki O'Brien, and Anita Richards	182 international MBA students	A 3-day experiential learning residential on an MBA programme; Survey design	Immersive experiential learning activities
Denise A. Jackson, Susan Edgar	126 students from Business and Physiotherapy	Two-staged intervention	<p>-Career development learning</p> <p>-Drawing on work experiences while articulating achievements and capabilities</p>
Young-Ah Kim, Kyung-Ah Kim, Nikolaos Tzokas	15,741 graduates belonging to Korean Graduates Occupational Mobility National Survey (2019)	Binary logistic regression analysis	<p>-Internship</p> <p>-Perceived suitability and usefulness of the curriculum</p> <p>-Certificates, supporters, appearances</p>
Gonghua Li	97 medical college students	The ADF single root test	Innovation and entrepreneurship education

Author	Sample	Methodology	Factors Influencing Employability
Oluyomi Susan Pitan, Sulaiman Olusegun Atiku	600 final-year undergraduates from four universities in the South-West region	Exploratory and confirmatory factor analysis and subsequently, structural equation modelling (SEM)	Self-awareness and opportunity awareness greatly influence students' employability, followed by decision-making skills, and transition learning skills.
Dian Ratna Sawitri and Ika Zenita Ratnaningsih	321 undergraduate students studying in a Semarang university	Quantitative study: Structural equation modeling	Proactive personality and family influence to employability was seen partially mediating career planning and exploration.
Florian Scheuring and Jamie Thompson	11 graduate recruiters, two higher education institutions	Interviews, pre-survey, and post-survey	Positive relationship between students' engagement in business simulation and an improvement in evaluation of their life skill competencies.
Daleng Zhou, Zeyi Peng and Hongling Zhou	1,078 senior vocational students	SPSS and AMOS for descriptive statistics; Pearson correlation coefficient analysis	<p><i>Significant positive effect on employability:</i></p> <p>Self-efficacy in career decision-making of senior vocational students; emotional intelligence of senior vocational students</p> <p>Emotional intelligence of senior vocational students mediates the relationship between self-efficacy in career decision-making and employability.</p>

Table 1 Summary of the selected literature

Based on previous studies on influential factors focusing on the university factors and personal factors (Kim et al. 2022), three categories are identified according to the different participating subjects in the development of students' employability to represent available literature by using steps of thematic analysis and a deep understanding of the factors influencing employability: influencing factors from the universities and colleges, influencing factors from the society and influencing factors from students themselves. The next section discusses each category in detail.

3.1 Influencing factors from the universities and colleges

The influencing factors from the universities and colleges have been divided into five variables, namely, curriculum design and perceived usefulness, career development learning, employment-related programs, innovation and entrepreneurship education, teachers' competency. Extensive literature is studied here to analyse the impact each variable has on student employability. The relevance and effectiveness of a curriculum have a notable effect on student employability. Confidence in a well-structured curriculum often translates to confidence in the job market, directly influencing students' job prospects (Kim et al. 2022).

The role played by career development learning (CDL) is crucial to help students understand the skills and communicate their accomplishments which ultimately boosts their chances of employability (Kinash et al. 2015). The study by Ho et al. (2022) has supported the integrating CDL into assessment as well as curriculum frameworks. This can help the graduates articulate their achievements effectively it will also be useful for them to reach their employment goals and highlight the link between their employability and career development. The research by Kim et al. (2022) points out that colleges are a source of important employment programs such as internships, career counselling, campus job fairs, and corporate recruitment events. These programs have the capability to improve employability of graduates. Jackson et al. (2023) revealed that experiential learning is an inclusive and successful way to increase the employability of international students in research of 629 students at a higher education institution in North-West England. This discovery is significant for institutions worldwide. Similar findings were made by Scheuring and Thompson (2024), who showed that team-based business simulations significantly improve students' employability.

Research conducted by Li (2017) on medical students' innovation and entrepreneurship education revealed that such education significantly improves employability and serves as a key approach for enhancing job readiness among medical college students (Chen et al. 2015). Hsieh and Usak (2020) assert that teachers' core competencies, such as resource satisfaction competency, interflow communication abilities, social developing techniques, and cooperative relationship competency, and teaching resource distribution are essential for developing students' employability skills, including job discovery, problem-solving, and Sense of Value and Costs associated with their work.

3.2 Influencing factors from the society

There are three elements in the influencing factors from the society, namely, pre-entry work experience, support systems and family influence. According to Creed, Hood, and Hu (2019), students who engage

in work tend to develop greater confidence in their ability to craft their careers, a skill that positively affects various aspects of employability. Bennett et al. (2023) points out that the role of work experience, particularly that gained before entering university, is often underestimated when evaluating students' perceived employability. Government support, including policies that promote graduate employability, access to professional certifications, mentorship opportunities, and support networks, also plays a crucial role in enhancing employability (Kim et al. 2022). Family influence encompasses factors such as informational and financial support, family values, beliefs, and expectations (Fouad et al. 2010). Additionally, research by Sawitri and Ratnaningsih (2020) found that a proactive personality and family support are directly and positively linked to perceived employability.

3.3 Influencing factors from students themselves

In the light of personal factors, aspects such as innovative characteristics, readiness to work, self-efficacy and career decision-making, self and opportunity awareness, and emotional intelligence are important to be considered. The research by Ahmid et al. (2023) has identified some pivotal factors having the capability to enhance competitiveness and employability of vocational college students. It includes innovation characteristics of work readiness and professional self-concept. Working on these areas as the capability to address challenges faced by graduates in their employment. Additionally, by improving innovation skills preparedness for the job professional self-concept in vocational students the quality of employability can be upgraded significantly.

To Influence employability greatly research has established the role of self-efficacy in career decision making (Hu, 2019; Peng and Yue, 2022). The research views of Zhou et al. (2023) contributes that this self-efficacy when combined with emotional intelligence can be pivotal for improving the career prospects and employability of graduates. The study by Pitan and Atiku (2017) as emphasized the positive effect of self and opportunity awareness on the improvement of employability. This awareness can be fostered by encouraging the students to interview their employers and undertake market research relevant to their professional pathway (McIlveen et al. 2011). It can also be followed by drafting a report where the findings are integrated with relevant disciplinary theories.

3.4 Proposed theoretical model

The aforementioned topics can be used as the basis for creating a model of the variables affecting students' employability. Two primary kinds of factors influencing employability have been found by previous research: personal factors and university-related factors (Kim et al. 2022). To give a more thorough picture of the elements influencing students' employability, we suggest including a third theme, social factors (Hood and Hu, 2019; Bennett et al. 2023; Kim et al. 2022; Fouad et al. 2010; Sawitri and Ratnaningsih, 2020). A thorough theoretical framework for the elements influencing students' employability has not yet been fully developed by research. In order to close this gap, we recommend that future research on the variables affecting students' employability use the model shown in Table 2.

The above themes present a foundation for particular factors that influence employability of students.

Earlier research identified that university related and personal factors are the two main categories that affect employability (Kim et al. 2022). This research, however, adds a third theme of societal factors so that more understanding and comprehensive take can be developed concerning the influencing factors of student employability (Bennett et al. 2023; Fouad et al. 2010; Hood and Hu, 2019; Kim et al. 2022; Sawitri and Ratnaningsih, 2020). Besides these research efforts There is a need to develop a theoretical framework that explains factors impacting student employability. Therefore, to address this gap the model presented in table 2 can be used for future studies. Each of these three factors are further divided in this proposed theoretical model, with variables grouped based on classifications used by researchers referenced for each factor.

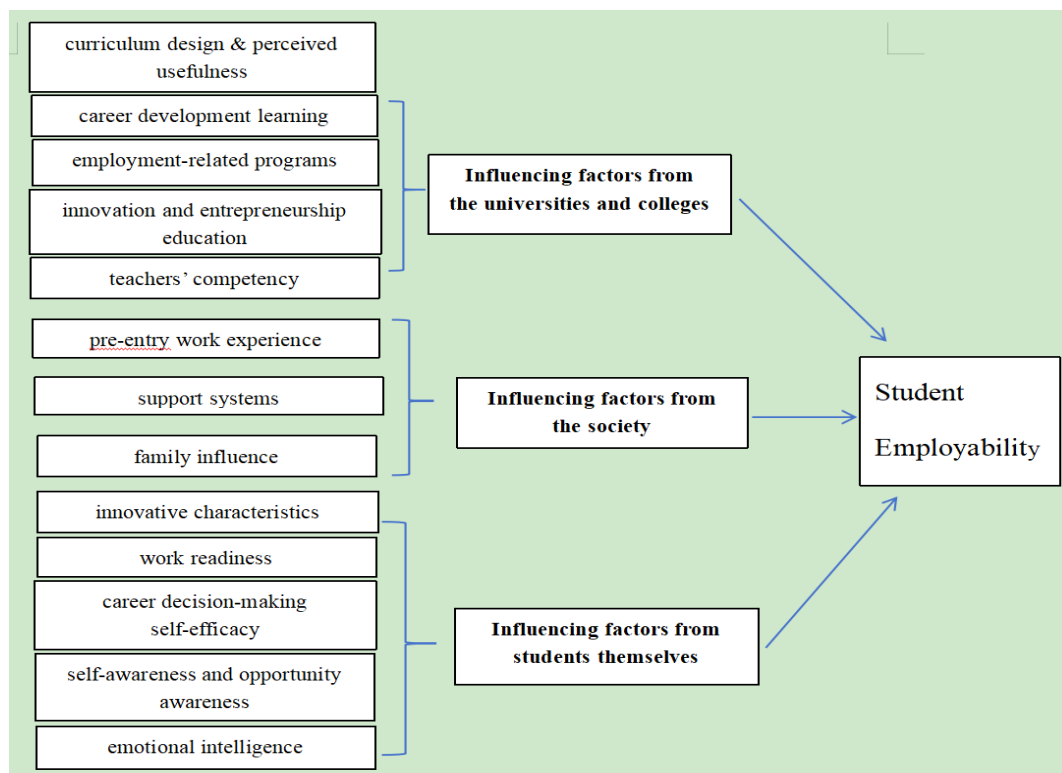


Table 2 Proposed theoretical framework for this paper

4. Discussion and Conclusion

The current study explored the three influencing factors of student employability—universities and colleges, society, and students themselves—playing interconnected roles in shaping graduates' employability through a SLR by considering literature from countries across the globe.

4.1 Discussion and implication

Firstly, the design of curriculum, practical learning experiences, internships, and career support services are crucial in preparing students for the demands of the job market. Effective career guidance, industry-university collaborations, and hands-on programs like simulations or internships are key drivers of employability. The structure, content, and relevance of the curriculum are pivotal in preparing students for the workforce. A well-designed curriculum aligned with industry needs ensures that

students acquire the necessary skills and knowledge. A curriculum perceived as useful boosts students' confidence and helps them connect their academic learning to practical work situations (Yorke and Knight, 2004). Universities need to continuously update their programs in collaboration with industry experts to reflect changes in job markets, technological advancements, and new industry standards. This alignment enhances graduates' ability to transition smoothly into their careers (Tomlinson, 2017).

Career Development Learning enables students to reflect on their skills and work experiences, articulate their achievements, and acquire valuable career-related knowledge. Activities such as career workshops, mentorship, resume writing, and networking events help students better understand job opportunities and career paths (Bridgstock, 2009). By incorporating structured career development initiatives, universities can help students build essential career planning skills, making them more aware of the expectations of potential employers and better prepared for the job market (Clarke, 2017). Employment-related programs provide real-world experience, which are often the most direct factor in employability. It offers students a chance to gain practical insights, develop workplace competencies, improve life skills, such as critical thinking, teamwork, decision-making, and practical problem-solving, which are all vital for employability (Jackson, 2014). The activities employment-related directly affects the practice of students' employment guidance and skills and access to employment information. Programs that nurture creativity and entrepreneurial thinking help students develop an adaptable mindset. Innovation and entrepreneurship education prepares students for various career paths, including self-employment or undertaking a business (Pittaway and Cope, 2007). Universities should expand entrepreneurship-focused courses and programs, encouraging students to think creatively and develop the skills needed to innovate in their fields. This not only broadens career options but also prepares students for evolving job markets where innovation is key.

Employability can be greatly impacted by teachers who possess professional skills, a strong dedication, excellent management, and social skills. In addition to helping students identify jobs and plan their careers, competent teachers can mentor students and help them develop their problem-solving skills (Yorke and Knight, 2004). Universities should spend money on teacher preparation programs to improve instructors' communication, mentorship, and hands-on teaching skills. Second, internships, part-time jobs, and volunteer work are examples of pre-entry work experience that give students a head start on understanding workplace dynamics. Pre-entry work experience has been shown to improve students' job crafting abilities and job market confidence (Creed et al. 2019). This plays a crucial role in shaping and driving employability because it provides students with practically applicable skills and a better understanding of workplace demands, which increases their overall adaptability. However, the effect of pre-entry work experience is not given much attention in contextualizing about employability (Bennett et al. 2023). To influence graduate employability positively the research has shown that government policies support systems access to professional networks and career services play an important role (Kim et al. 2022). For this to happen, crucial resources such as certifications, financial aid, and mentorship opportunities are provided to graduates to assist them in navigating the labour market. Besides that, employment networks and career services from universities also offer them with

guidance and support for job placement, which creates a connecting bridge between their professional and academic life. This becomes crucial for smoothly transitioning into the workforce. Thus, making these systems stronger can assist students in tapping into the professional networks, their skills, and land their desired job outcomes. Universities can also tie up with employers to provide updated information to their career services to match up as per market requirements.

In terms of family influence the financial support as well as emotional and informational support given to students are valuable for their career progression. Research by Fouad et al. (2010) and Sawitri and Ratnaningsih (2020) has demonstrated that strong family support s for students result into a more positive perception and understanding of their employability. The influence of family can establish itself via financial support encouragement or guiding in making career choices. Families who are involved proactively can assist students in developing self-efficacy confidence and going in the right direction in their career journey. This explains why family involvement in the career development of a student is pivotal in fostering a positive outlook on employability. Hence, family engagement programs can be offered by educational institutions so that parents can be informed and educated about the trends and shifts in labor market to support their children meaningfully. Third, apart from these, innovation dimensions such as leadership, risk taking, energy, and creativity are valuable in improving employability of students. Ahmid et al. (2023) highlights that these traits can assist vocational college students to stand out in competitive professional environments. Creativity can also assist them in solving problems in an unconventional way. Readiness to work involves traits such as adaptability social intelligence, possessing relevant job skills. Ahmid et al. (2023) also emphasizes that social intelligence is important to interact professionally and effectively in workplace. Hence students require state of the heart experience to develop useful technical and social skills to become job ready when they graduate.

Research highlights that possessing higher self-efficacy in making career decisions can lead to fruitful employability outcomes (Hu, 2019; Peng and Yue, 2022). This is because students with greater confidence are more likely to chase career opportunities that align with their aspirations and skills. This eventually enhances their chances of being satisfied with their job. For this, career counselling and mentoring programs available to students can boost their confidence in coming up with suitable career decisions and these need to be integrated into the services provided by universities. Educational institutions can also consider offering guidance service for student employment, where they assist them in evaluating different career options, improving their decision-making skills, and/or preparing for job applications. Lastly, self and opportunity awareness are vital for identifying personal weaknesses, strength and the potential career pathways that can be taken. Research by Pitan and Atiku (2017) highlight that self-aware students know about their capabilities and the opportunities existing in their fields that are suitable for their employability. They also actively undertake market research and employer interviews to align their ability with professional requirements and opportunities better. Hence, students should look for services that boost their self-awareness and opportunity awareness. It includes career exploration exercises, professional networking events, and self-assessment tools.

Emotional intelligence involves understanding and managing one's emotions as well as those of others.

Zhou et al. (2023) emphasized its importance in employability, noting that students with high emotional intelligence are better equipped to navigate workplace challenges, communicate effectively, and build strong relationships. Emotional intelligence contributes to teamwork, leadership, and conflict resolution, all of which are highly valued in the professional world. Emotional intelligence training and psychological test and service should be incorporated into the curriculum through workshops on communication, empathy, and stress management.

4.2 Limitations and areas for further research

Despite contributing to understanding the factors influencing student employability, this study has some limitations. First, the literature reviewed is limited to peer-reviewed research papers. Although extensive efforts were made to search using relevant keywords, only studies focusing on factors influencing student employability were highlighted. There is a possibility that some studies were missed, particularly if they were not available or published in languages other than English. Second, the diversity of respondents in terms of different majors and grades may have affected the accuracy of the results. Future research could focus on a more specific group, such as graduates or postgraduate students, to provide targeted insights and solutions for that particular demographic.

Third, some relevant literature may have been overlooked during the initial screening stage, especially if the articles did not include keywords like "employability," "employment ability," or "factors influencing student employability" in their titles. Furthermore, it's possible that papers from databases not included by the study's approach were overlooked. Longer time periods and a wider variety of databases and sources should be the focus of future studies. Statistically confirming the measuring scales for the variables and themes covered could be the focus of future research. More in-depth findings might come from a more thorough investigation that tests the connections between variables and their effects on particular demographic groups utilising primary data. Using the suggested theoretical model, future studies might additionally examine the interactions between these components and evaluate their total impact on students' employability.

4.3 Conclusion

This SLR used thematic analysis to offer a comprehensive overview of global literature on factors influencing student employability. The insights gained here, as illustrated by the proposed theoretical model, should be considered for graduating students when designing career guidance strategies. In future, this framework can serve as a foundation to conduct quantitative research to understand the impact of various factors on employability within specific populations better. The three key influencing factors—universities and colleges, society, and students themselves—are interrelated and collectively shape graduates' readiness and success in the labor market. A comprehensive approach to education and career preparation, addressing all these dimensions, is essential for enhancing students' employability.

References

- [1] Ahmid, S. S., Chun, T. C., and Abdullah, M. N. L. Y. (2023). *"The Influence of Innovative*

Characteristics, Work Readiness, and Vocational Self-Concept on Employability of Vocational College Students”, International Journal for Research in Vocational Education and Training, Vol. 10 No. 3, pp. 288–317. <https://doi.org/10.13152/IJRVET.10.3.1>

[2] Akosah-Twumasi, P., Emeto, T.I., Lindsay, D., Tsey, K. and Malau-Aduli, B.S. (2018), “A systematic review of factors that influence youths career choices-the role of culture”, Frontiers in Education, Vol. 3.

[3] Arslan, M. (2020), “Corporate social sustainability in supply chain management: a literature review”, Journal of Global Responsibility, Vol. 11 No. 3, pp. 233-255.

[4] Bennett, D., Knight, E., and Li, I. (2023). “The impact of pre-entry work experience on university students’ perceived employability”, Journal of Further and Higher Education, Vol.47 No. 8, pp. 1140–1154.

[5] Braun, V. and Clarke, V. (2006), “Using thematic analysis in psychology”, Qualitative Research in Psychology, Vol. 3 No. 2, pp. 77-101.

[6] Bridgstock, R. (2009). “The graduate attributes we’ve overlooked: enhancing graduate employability through career management skills. Higher Education Research and Development”, Vol. 28 No. 1, pp. 31–44.

[7] Chen, Y., Wang, Y., Nevo, S., Benitez-Amado, J., and Kou, G. (2015). “IT capabilities and product innovation performance: The roles of corporate entrepreneurship and competitive intensity”, Information and Management, Vol. 52 No. 6, pp. 643-657.

[8] Chengying J. (2022). “Study On The Influence Of Entrepreneurship Education On College Students’ Employment Competitiveness In Shanxi Province”, Thesis. Shanxi Finance and Economics University.

[9] Chiara Succì and Magali Canovi. (2020). “Soft skills to enhance graduate employability: comparing students and employers’ perceptions”, Studies in Higher Education Vol. 45 No. 9, pp.1834-1847.

[10] Clarke, M. (2017). “Rethinking graduate employability: the role of capital, individual attributes and context”, Studies in Higher Education, Vol. 43 No. 11, pp. 1923–1937. <https://doi.org/10.1080/03075079.2017.1294152>

[11] Dania, J., Bakar, A. R., and Mohamed, S. (2014). “Factors Influencing the Acquisition of Employability Skills by Students of Selected Technical Secondary School in Malaysia”, International Education Studies, Vol.7 No. 2, pp.117-124.

[12] Fallows, S. and Steven, C. (2000), “Building employability skills into the higher education curriculum: a university-wide initiative”, Education & Training, Vol. 42 No. 2, pp. 75-83.

[13] Fenta, H., Asnakew, Z.S., Debele, P.K., Nigatu, S.T, and Muhaba, A.M. (2019). “Analysis of supply side factors influencing employability of new graduates: A tracer study of Bahir Dar

University graduates”, Journal of Teaching and Learning for Graduate Employability, Vol. 10 No. 2, pp. 67–85.

[14] Florian S. and Jamie T. (2024) “*Enhancing graduate employability – exploring the influence of experiential simulation learning on life skill development*”, Studies in Higher Education, DOI: 10.1080/03075079.2024.2334837

[15] Ho TTH, Le VH, Nguyen DT, Nguyen CTP, Nguyen HTT.(2022). “*Effects of career development learning on students' perceived employability: a longitudinal study*”, High Educ (Dordr). Vol. 27, pp.1-19. doi: 10.1007/s10734-022-00933-6. Epub ahead of print. PMID: 36187080; PMCID: PMC9514680.

[16] Hosain, M. S., Mustafi, M. A. A., and Parvin, T. (2021). “*Factors affecting the employability of private university graduates: an exploratory study on Bangladeshi employers*”, PSU Research Review, Vol. 7, No. 3, pp. 163-183.

[17] Hsieh, M., and Usak, M. (2020). “*High Education Radical Transformation Era: How Teachers' Competency can enhance the Students' Employability?*”, Revista De Cercetare Si Interventie Sociala, Vol. 68, pp.95-112.

[18] Hu, Y. H. (2019). “*The relationship between self-efficacy in career decision making and employability among college students: the mediating role of career planning*”, Educ. Theory Prac. Vol.39, pp.38–40.

[19] Huang F Q, You J R, Tu L, Zeng WJ (2017). “*Systematic literature review method: cases, steps, and values*”, Research on audio-visual Education, Vol. 38, No. 11, pp. 11-18 + 25.

[20] Jackson, D. (2014). “*Employability skill development in work-integrated learning: Barriers and best practice*”, Studies in Higher Education, Vol. 40, No. 2, pp. 350–367. <https://doi.org/10.1080/03075079.2013.842221>

[21] Jackson, D. A., and Edgar, S. (2019). “*Encouraging students to draw on work experiences when articulating achievements and capabilities to enhance employability*”, Australian Journal of Career Development, Vol. 28, No. 1, pp. 39-50. <https://doi.org/10.1177/1038416218790571>

[22] Jackson, V., O'Brien, V., and Richards, A. (2023). “*Investigating the impact of experiential learning on employability skill development and employment outcomes: a UK case study of MBA students from the Indian Subcontinent*”, Journal of Education and Work, Vol. 36, No.6, pp. 476–493. <https://doi.org/10.1080/13639080.2023.2231366>

[23] Kim, Y. A., Kim, K. A., and Tzokas, N. (2022). “*Entrepreneurial universities and the effects of the types of vocational education and internships on graduates' employability*”, Studies in Higher Education, Vol. 47, No. 5, pp. 1000–1009. <https://doi.org/10.1080/03075079.2022.2055324>

[24] Kinash, S., Crane, L. H., Judd, M.-M., Mitchell, K., McLean, M., Knight, C., Dowling, D., and Schulz, M. (2015). “*Supporting graduate employability from generalist disciplines through employer and private institution collaboration: Final report*”, Australian Government Office for Learning and

Teaching. <http://www.olt.gov.au/resource-graduate-employability-employer-private-institution-collaboration>

- [25] Li, G. (2017). “*Role of Innovation and Entrepreneurship Education in Improving Employability of Medical University Students*”, Eurasia Journal of Mathematics, Science and Technology Education, Vol. 13, pp. 8149–8154.
- [26] Lundberg G.M., Krogstie B.R., and Krogstie J., (2021). “*From Employable to Fully Operational: The Need for Training of Computer Science Graduates*”, International Journal of Engineering Pedagogy (iJEP), Vol. 11, No. 3, pp. 21–38.
- [27] Mawson, M., and Haworth, A. C. (2018). “*Supporting the employability agenda in university libraries: A case study from the University of Sheffield*”, Information and Learning Science, Vol. 119, Nos. 1/2, pp. 101–108.
- [28] McIlveen, P., Brooks, S., Lichtenberg, A., Smith, M., Torjul, P., and Tyler, J. (2011). *Career development learning frameworks for work-integrated learning*. In S. Billett and A. Henderson (Eds.), *Developing learning professionals: Integrating experiences in university and practice settings* (pp. xx-xx). Dordrecht, The Netherlands: Springer.
- [29] Mgaiwa, S. J. (2021). “*Fostering graduate employability: Rethinking Tanzania’s university practices*”, SAGE Open, Vol. 11, No. 2. <https://doi.org/10.1177/21582440211006709>
- [30] Mishrif, A., Karolak, M., and Mirza, C. (2023). *The nexus between higher education, labour market, and Industry 4.0 in the context of the Arab Gulf states*. In A. Mishrif, M. Karolak, and C. Mirza (Eds.), *Nationalization of Gulf labour markets: The political economy of the Middle East* (pp. 1–23). London: Palgrave Macmillan.
- [31] O’Leary, S. (2017). “*Graduates’ experiences of, and attitudes towards, the inclusion of employability-related support in undergraduate degree programmes: Trends and variations by subject discipline and gender*”, Journal of Education and Work, Vol. 30, No. 1, pp. 84–105.
- [32] Oliver, B. (2015). “*Redefining graduate employability and work-integrated learning: Proposals for effective higher education in disrupted economies*”, Journal of Teaching and Learning for Graduate Employability, Vol. 6, No. 1, pp. 56–65. <https://doi.org/10.21153/jtlge2015vol6no1art573>
- [33] Pan, W. (2020). “*The analysis of the influencing factors of the college students’ employment ability based on the structural equation model*”, External Trade, Vol. 7, No. 313, pp. 115–117.
- [34] Peng, M. Y. P., and Yue, X. (2022). “*Enhancing career decision status of socioeconomically disadvantaged students through learning engagement: Perspective of SOR mode;*”, Frontiers in Psychology, Vol. 13, Article 778928. <https://doi.org/10.3389/fpsyg.2022.778928>
- [35] Pitan, O. S., and Atiku, S. O. (2017). “*Structural determinants of students’ employability: Influence of career guidance activities*”, South African Journal of Education, Vol. 37, pp. 1–13.

- [36] Pittaway, L., and Cope, J. (2007). “*Entrepreneurship education: A systematic review of the evidence*”, International Small Business Journal, Vol. 25, No. 5, pp. 479–510. <https://doi.org/10.1177/0266242607080656>
- [37] Pittaway, L., and Hannon, P. (2008). “*Institutional strategies for developing enterprise education: A review of some concepts and models*”, Journal of Small Business and Enterprise Development, Vol. 15, No. 1, pp. 202–226. <https://doi.org/10.1108/14626000810850937>
- [38] Sawitri, D., and Ratnaningsih, I. (2020). “*Paths from proactive personality and family influence to employability*”, Jurnal Ilmiah Peuradeun, Vol. 8, No. 3, pp. 587–600. <https://doi.org/10.26811/peuradeun.v8i3.514>
- [39] Scheuring, F., and Thompson, J. (2024). “*Enhancing graduate employability – exploring the influence of experiential simulation learning on life skill development*”, Studies in Higher Education, pp. 1–15. <https://doi.org/10.1080/03075079.2024.2334837>
- [40] Shahzad, K., Arenius, P., Muller, A., Rasheed, M. A., and Bajwa, S. U. (2019). “*Unpacking the relationship between high-performance work systems and innovation performance in SME*”, Personnel Review, Vol. 48, pp. 977–1000.
- [41] Small, L., Shacklock, K., and Marchant, T. (2018). “*Employability: A contemporary review for higher education stakeholders*”, Journal of Vocational Education and Training, Vol. 70, No. 1, pp. 148–166.
- [42] Suleman F. (2018) “*The Employability Skills of Higher Education Graduates: Insights into Conceptual Frameworks and Methodological Options*”, Higher Education, Vol. 76, No. 2, pp. 263–278. <https://doi.org/10.1007/s10734-017-0207-0>
- [43] Tomlinson, M. (2017). “*Forms of graduate capital and their relationship to graduate employability*”, Journal of Education and Training, Vol. 59, pp. 338–352.
- [44] Tranfield, D., Denyer, D., and Smart, P. (2003). “*Towards a methodology for developing evidence-informed management knowledge by means of systematic review*”, British Journal of Management, Vol. 14, No. 3, pp. 207–222. <https://doi.org/10.1111/1467-8551.00375>
- [45] Vermeulen, B., Kesselhut, J., Pyka, A., and Saviotti, P. P. (2018). “*The impact of automation on employment: Just the usual structural change?*”, Sustainability, Vol. 10, Article 1661.
- [46] Wang, Y., Wu, Y., and Wu, Z. (2023). “*Impact factors and improvement strategies of non-public funded normal university students in local undergraduate universities*”, Employment and Security, Vol. 5, pp. 94–96.
- [47] Wilks, C., Jones, L., Ojiaku, U., and Tando, A. (2017). “*Supporting student success and employability development through a personalised co-curricular framework: A Kingston University case study*”, Paper presented at HEA Annual Conference 2017-Generation TEF: Teaching in the Spotlight, 4–6 July, Manchester.

- [48] Yorke, M., and Knight, P. T. (2004). *“Embedding employability into the curriculum. Learning and Employability Series”*
- [49] Zhang, H., Sukpasjaroen, K., and Chankoson, T. (2021). *Factors influencing employability and management countermeasures of nursing graduates in vocational education in Henan Province, China*. Proceedings of IAC 2021 in Vienna, Vol. 1, pp. 57.
- [50] Zhilin G., Wang N., and Jiang S. (2019). *“Construction of the structure model of college students' employment under the background of supply-side reform”*, Employment Guidance Vol.15: 50-54.
- [51] Zhou, D., Peng, Z., and Zhou, H. (2023). *“The influence of career decision-making self-efficacy on employability of higher vocational students: Mediated by emotional intelligence”*, Frontiers in Education, Vol. 8.