A SYSTEMATIC REVIEW OF RESEARCH ON SOFT SKILLS FOR EMPLOYABILITY

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Abstract. Science mapping was utilized in this systematic review of research to analyze the body of knowledge on soft skills for employability. The research review selected high impact articles, charted the "intellectual structure", and recorded the volume, development rate, and geographical spread of this literature. Forty-five English-language, Scopus-indexed documents that were published between 2013 and 2023 made up the database of this review. The review revealed that the documents on soft skills for employability has slightly grown over the recent years with an average of 6 documents published in each year of 2017 to 2021. The field was mostly dominated by scholars from Europe and Asia. Four "schools of thought" were identified through author co-citation analysis as the "intellectual structures" of soft skills for employability. These are: Soft Skill Development of Students, Employers' Expectations on Graduates, Key Soft Skills, and Measuring Employability. Analysis of the document content resulted in the conclusion that there is a clear agreement in the literature that employability and career preparedness are difficult notions that cannot be simply defined, quantified, or put into practice. A significant gap between the demands of the actual world and our educational system in terms of soft skills has been determined. The research recommends "skillfying the syllabus" or "skillification" in order to guarantee that soft skills are taught in the curriculum.

Keywords: Soft Skills, Employability, Higher Education, Graduates, Employers

1. INTRODUCTION

In today's challenging economic environment, academic knowledge is no longer enough; students must learn employability skills to obtain good career prospects (Ibrahim and Mistree, 2017). Teng et al. (2019) argued that in order to increase graduate job preparedness, institutions need to include soft skills in their courses. According to Anggiani (2017), soft skills are the personal characteristics that enhance interpersonal interactions. Similarly, Cimatti (2016) stated that soft skills are all those aptitudes that aren't explicitly related to a certain activity but are crucial in any position because they primarily involve interactions with other employees of the organization.

According to Seetha (2014), soft skills are crucial for organizational success and well-being since they have a significant impact on the achievement of work performance. Anggiani (2017) looked at the effect of skills on employees' performance and came to the conclusion that both hard and soft skills have a big impact on employees' performance. The importance of soft skills in the workplace was underlined in the World Economic Forum's "Future of Jobs" report. It claims that by 2025, companies would place analytical thinking,

creativity, and problem-solving among the top soft skills companies will look for in graduates (World Economic Forum, 2020). This puts pressure on higher education institutions to not just focus on technical skills training of students as it is not enough to address the challenges in the modern workplace.

One of the most debated topics in the present literature on graduate employability is the quality of students and their lack of soft skills, which are essential in today's labor market and required to boost individual employability (Clarke, 2017; Crossman and Clarke, 2010). Employers have criticized and held higher education accountable for not preparing students adequately for the modern labor market, consistently highlighting students' lack of soft skills (Hurrell, 2015). According to a 2019 study by SHRM, 30% of businesses find it difficult to hire recent graduates who have a certain set of soft skills, further demonstrating that the shortage of soft skills is not new (Tarallo, 2019). Likewise, one in four businesses believe that traditional institutions cannot equip students with the skills they need to compete in the modern job market (McKinsey Global Institute, 2019). Higher education institutions seem to have, over time, responded to this criticism and gradually addressed this issue, but improvements in students' acquisition of soft skills still seem to be inadequate.

To address this gap, this study aims to conduct a systematic review of research on how higher education institutions view soft skills as a factor for employability. The study will also add to the current knowledge base by discussing the role of higher education in soft skills training and preparing job-ready graduates and laying down the expectations of employers on the graduates of higher education.   It aims to answer the following research questions:

1.	What are the trends in the volume, development rate, and geographical distribution of research on soft skills for employability?

2.	Who are the most influential authors and publications in the field of soft skills for employability?

3.	How is the intellectual structure of soft skills for employability research organized?

This study's conceptual framework was built on the materials from Hallinger and Kovacevic (2019). The framework includes important elements such as size, time, place, and composition. Each element aids in understanding the intellectual structure of soft skills for employability and the overall research landscape.

2. METHODS

The Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) served as a guide for the systematic review's methodology and reporting. It is a set of evidence-based guidelines that promotes replicability and helps to guarantee the quality of the review process (Moher et al. 2009). The researcher outlines the criteria for choosing the articles, the search strategy, and the procedures for data extraction and analysis using this approach.

The search was conducted between May and July 2023 using the Scopus database, as it is widely recognized as one of the largest and most authoritative databases for scientific literature. Only papers released between 2013 and 2023 that were published in English

were included in the search. This time period was chosen as utilizing sources that were published within the last ten years is a good rule of thumb to ensure currency of information, relevance, and applicability. To gather the greatest number of eligible studies, this Boolean search function was used: TITLE-ABS-KEY (("soft skills" OR "personal skills" OR "interpersonal skills" OR "non-technical skills" OR "essential skills" OR "transferable skills") AND "higher education" AND "employability")

The initial Scopus search identified 252 documents from the Scopus database. In the screening process, 43 studies published below 2012 and 8 non-English were removed. Furthermore, 62 ineligible document types (books, book chapters, and absence of full paper) were also excluded. After evaluating the content of the studies, additional 94 documents were excluded as they did not match the study questions that had been formulated.
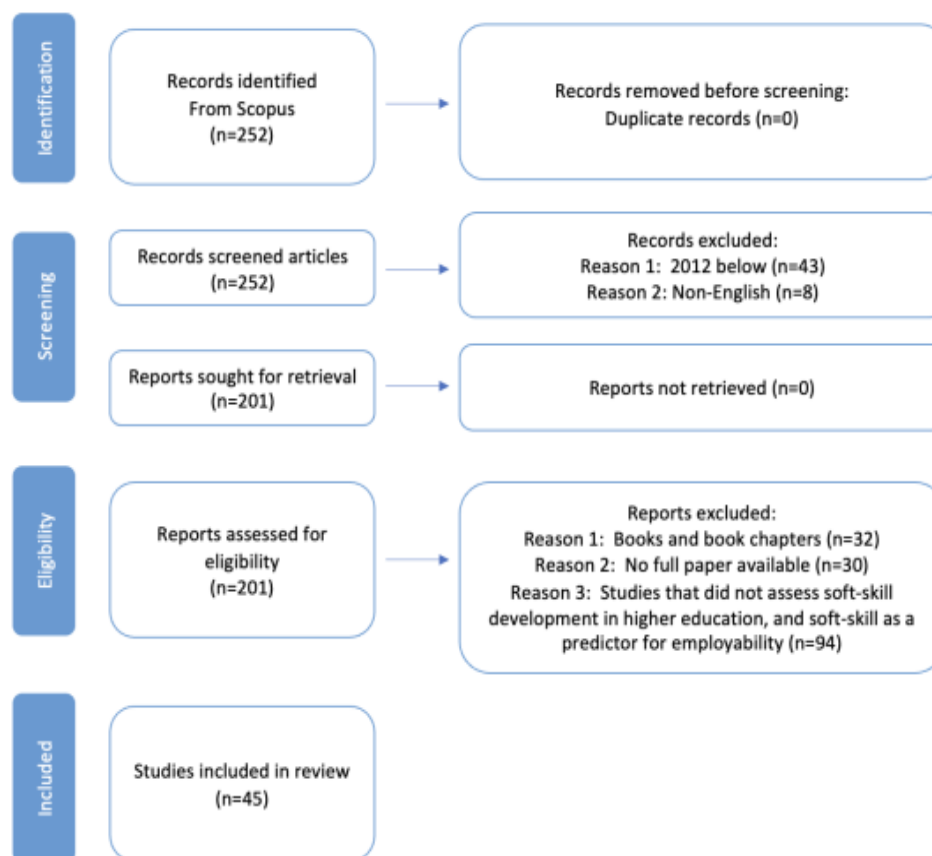

Figure 1. PRISMA review process flow

The data was downloaded in CSV format from Scopus and imported into a master Excel file. The Excel file was utilized to create a descriptive analysis for the purpose of recording the soft skills of students or graduates of higher education institutions and how it relates to employability. Data from the Excel file were imported into VOSviewer to perform bibliometric analyses (author and document citation analysis, and author co-citation analysis). The VOSviewer software's bibliometric method, "keyword co-occurrence analysis," was employed to show the keywords with the highest co-occurrence and their related themes, which can help determine the direction of future study.

3. RESULTS

This section summarizes the study's results and findings after carefully examining the information acquired utilizing the research instrument.

3.1 Topographical Landscape of the Soft Skills

Recording the volume, development rate, geographical spread, and types of papers compromising the soft skills for employability was the focus of the first research question. The 45 Scopus-indexed documents consisted of 35 journal articles, 6 conference papers, 3 review papers, and 1 short survey. The articles were published in 28 various publications with a focus on teaching and learning as well as educational research.

Figure 2 shows that a total of 4 documents were published in the year 2015 and 2016, then an average of 6 documents per year are shown for the years 2017 through 2021. A slight decrease in documents was seen in 2022.
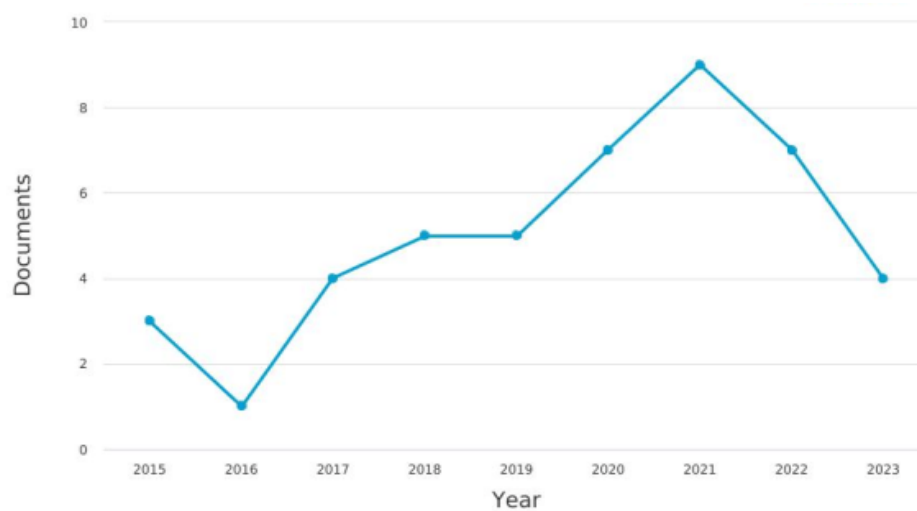

Figure 2. Development rate of the literature on soft skills for employability

The next analyses looked at the geographical spread of the documents related to the variable under study. Malaysia (8), Spain (6), the United Kingdom (6), Australia (4), and Portugal (4) are the leading contributors.
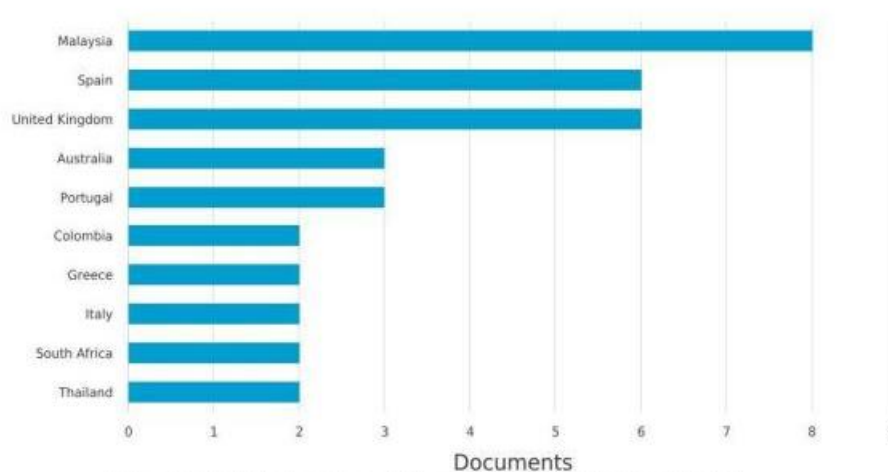

Figure 3. Global distribution of literature on soft skills for employability

The types of research papers were also examined with "Articles" leading the first place with a percentage of 77.8%. With a rate of 13.3%, "Conference Papers" are in second place. "Review" papers come third with a percentage of 6.7%, and short survey ranks fourth with a percentage of 2.2%.
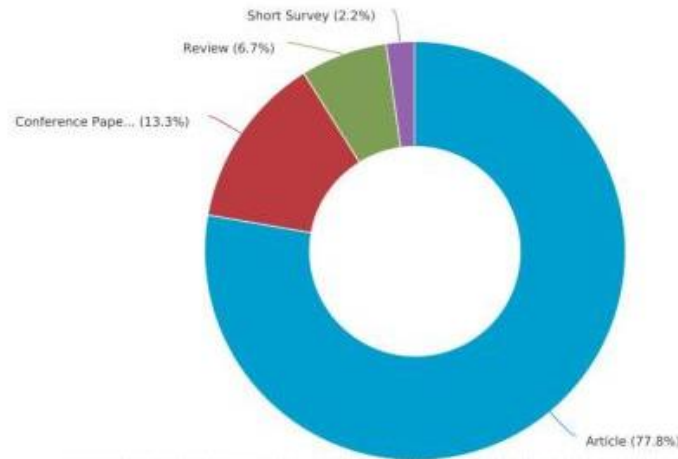

Figure 4. Production by type of publication

3.2 Analysis of Influential Documents

A citation analysis was done to determine which research papers were the most influential. The total citation count is 307. It should be emphasized that all of the documents have relatively few citations. This indicates that it hasn't yet had a wider impact. The top 10 documents were all journal articles. There is no analysis of influential authors as each of them authored only one paper in the review database.

Table 1. Ranking of the top 10 soft skills for employability documents from 2016 to 2023

Rank	Document	Author	Type	Scopus Citations
1	Identifying the trends and impact of graduate attributes on employability: a literature review	Osmani M., Weerakkody V., Hindi N.M., Al-Esmail R., Eldabi T., Kapoor K., Irani Z.	Article	67
2	Employers' expectations of the employability skills needed in the sport and recreation environment	Tsitskari E., Goudas M., Tsalouchou E., Michalopoulou M.	Article	53
3	Generic skills for graduate accountants: the bigger picture, a social and economic imperative in the new knowledge economy	Bunney D., Sharplin E., Howitt C.	Article	47

Rank	Document	Author	Type	Scopus Citations
4	Employability of international students: Strategies to enhance their experience on work-integrated learning (WIL) programs	Pham T., Saito E., Bao D., Chowdhury R.	Article	29
5	Promoting employability in higher education: A case study on boosting entrepreneurship skills	Pardo-Garcia C., Barac M.	Article	22
6	Soft skills for sustainable employment of business graduates of Bangladesh	Nusrat M., Sultana N.	Article	19
7	Walk the talk: soft skills' assessment of graduates	Succi C., Wieandt M.	Article	18
8	Skills and competencies in higher education and beyond	Raitskaya L., Tikhonova E.	Article	18
9	Graduate employability and higher education's contributions to human resource development in sport business before and after COVID-19	Sato S., Kang T.-A., Daigo E., Matsuoka H., Harada M.	Article	17
10	Quality higher education drives employability in the Middle East	Nauffal D., Skulte-Ouaiss J.	Article	17

Table 2 lists the 45 documents' annual citation rates through July 2023. A gradual increase in citations every succeeding year can be seen. It is to be noted that the second quarter of 2023 had just been finished, and total citations already amounted to 106.

Table 2. View Citation Overview

<2019	2019	2020	2021	2022	2023	Total
40	33	72	74	145	106	470

Source: Scopus function: View Citation Overview

3.3 Intellectual Structure of Soft Skills for Employability

The third question aimed at giving light to the intellectual structure underlying published soft skills for employability theory and research. The 13 writers who have been "co-cited" the most in the literature on soft skills for employability are shown on a co-citation

map that VOSviewer created using a threshold of 2 co-citations (see figure 5). The number of author citations in the review documents' reference lists is shown by the size of the author "nodes" on the co-citation map. The degree of intellectual association between authors is indicated by the proximity of author nodes, which also shows how often co-citation occurs. The conceptual pillars or "schools of thought" are represented by the colored clusters that make up the soft skills for employability literature.

Four diverse but linked "schools of thought" in the literature on soft skills for employability can be seen on the co-citation map in Figure 4. A group of authors who have written extensively about "Soft Skill Development of Students" can be seen in the red cluster. It is also the largest school within the explored topic, and several of the authors who are regularly co-cited in this literature are present (i.e., Bennett, Clarke, Dacre, Jackson, Mason). Researchers who have concentrated on "Employers' Expectations on Graduates" make up the green cluster. The blue cluster stands for a school of thought that emphasizes "Key Soft Skills" that students need to succeed in the job market. The last cluster, which is in the central location, connects the three other clusters. Its central position on the map shows that it serves as the conceptual foundation for the literature on soft skills for employability and it talks about "Measuring Employability". Labels on the figure were added by the researcher.
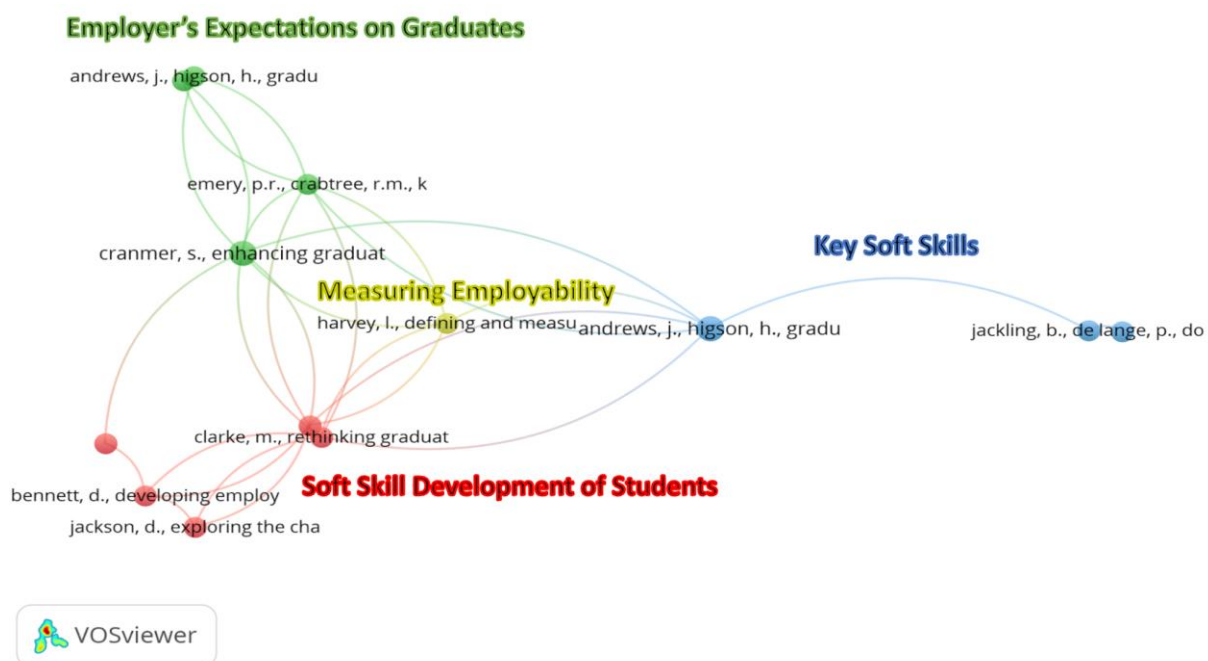
Figure 5. Author co-citation map highlighting the major authors and schools of thought in the literature on soft skills for employability

A total of 217 keywords were found in the 45 papers chosen for the current review study. Of those, 8 words were chosen as having the highest co-occurrence, and they were all arranged into three clusters of different colors as shown in Figure 6.
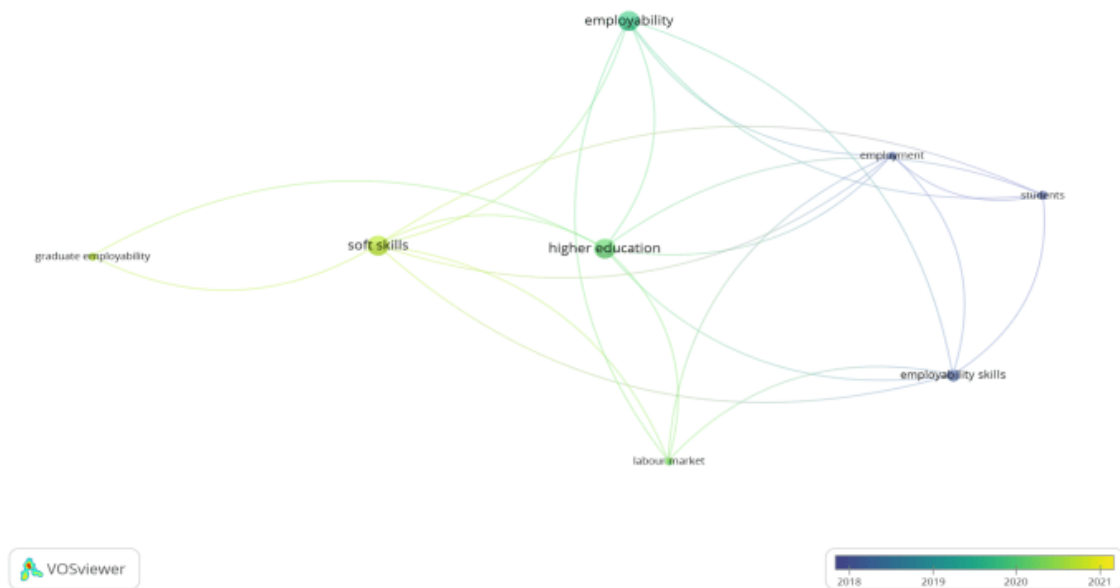
Figure 6. Co-occurence of keywords (VOSviewer - scopus).

4. DISCUSSION

The purpose of this systematic review was to record and summarize emerging themes in the field of soft skills for employability. The review looked at 45 Scopus-indexed publications from the last ten years using scientific mapping. The limitation of the review and interpretation of findings were emphasized in this section.

4.1 Limitations of the Review

Important findings revealed by documents are not the focus of the bibliometric analysis. Instead, this method was used to track and look for trends in the acquisition of information related to soft skills employability. As a result, this study did not synthesize the results of the soft skills research.

The review is further restricted to sources that can be accessed in the Scopus database. While Scopus offers substantial coverage of peer-reviewed journals, it is less comprehensive when it comes to books, book chapters, and conference reports. Additionally, the review did not include any materials in other languages due to the review's concentration on English-language sources.

4.1 Interpretation of Findings

The review identified a small collection of 45 Scopus-indexed, soft skills for employability-related documents published between 2013-2023. The information provided

in this review, as seen in the development rate, indicates that a growing number of researchers throughout the world are becoming interested in soft skills. This can be attributed to the evolving needs of the workforce and the realization of soft skills' critical importance in fostering effective and thriving workplaces. It was also found that the soft skills for employability literature in the Scopus database were more concentrated in European and Asian countries.

Bennett (2016), Clarke (2018), Dacre and Sewell (2007), Jackson (2017), Mason et al. (2009), Andrews and Higson (2008), Azevedo et al. (2012), Cranmer (2006), Emery et al. (2012), Jackling and De Lange (2009), Shakir (2009), and Harvey (2001) were found to be the most influential authors in the literature on soft skills for employability based on a mix of productivity, citation, and co-citation analyses. The paper of Harvey focused on defining and measuring employability. Its central position on the map shows that it served as a springboard for other related soft skills for employability literature. It draws the conclusion that, rather than merely ranking institutions, any assessment of employability must explicitly point out opportunities for internal development. Institutions that are working to raise their scores run the risk of concentrating too much on where they stand in the league tables (Harvey, 2001).

The next analyses aimed at giving light to the "intellectual structure" of the soft skills for employability literature available in Scopus database. Four schools of thought with differing sizes and impacts were identified by the review. A group of scholars who have concentrated on the Soft Skill Development of Students make up the biggest and most influential school. Developing employability in higher education requires a multifaceted approach that integrates practical experiences, such as internships, with entrepreneurial thinking and business acumen. Bennett (2016) highlights the importance of supporting graduates in navigating complex labor markets through career development, mentorship, and resources tailored to managing portfolio careers effectively. Similarly, Mason et al. (2009) emphasize the significance of a comprehensive framework for graduate employability, which includes human capital, social capital, individual attributes, behaviors, perceived employability, and labor market factors, urging a shift beyond generic skill-based learning outcomes. Furthermore, Clarke (2017) underscores the positive impact of structured work experiences and employer involvement in course design and delivery, demonstrating their role in enhancing graduates' ability to secure employment in graduate-level jobs. These findings collectively stress the need for holistic strategies in higher education to prepare graduates for dynamic labor markets.

Other schools of thought have focused on Employers' Expectations on Graduates, identifying Key Soft Skills, and Measuring Employability. Emery et al. (2012) identify that employers in sport management value achieving results, working with people, utilizing resources, and providing direction, with entry-level roles emphasizing communication, planning, problem-solving skills, and a strong work ethic or passion. Similarly, Andrews and Higson (2008) underscores the importance of balancing hard business skills with soft interpersonal competencies for business graduate employability. Employers across Europe highlight the significance of problem-solving, critical thinking, and work readiness, with work-based learning experiences playing a pivotal role. Adding to this, Jackling and De Lange (2009) reveal that while employers and graduates both acknowledge the importance

of technical accounting skills, employers demand a broader range of generic skills, including team collaboration, leadership potential, verbal communication, and interpersonal abilities—areas graduates felt were insufficiently covered in their programs. These studies collectively stress the necessity of integrating practical experience, soft skills training, and leadership development into curricula to prepare graduates for competitive job markets. Harvey (2001) critiques the common approach to measuring employability, which focuses on outcomes, treating employability as an institutional achievement rather than an individual's likelihood of securing employment. He challenges the notion of a "magic bullet" solution for employability development and proposes a more complex model. However, he argues that the irrational actions of graduate recruiters undermine any employability measures based on job acquisition rates. Harvey suggests an alternative approach involving an audit of employability development within institutions and emphasizes that evaluations of employability should highlight areas for improvement rather than simply ranking institutions.

5. CONCLUSIONS

There is a clear agreement in the literature that employability and career preparedness are difficult notions that cannot be simply defined, quantified, or put into practice. Evidence suggests that employers now value soft skills, and they expect higher education to equip their graduates with soft skills because these skills are essential for effective communication, teamwork, problem-solving, adaptability, and emotional intelligence. Soft skills complement technical knowledge and are crucial for success in the workplace, as they help graduates navigate professional environments, collaborate with colleagues, and handle various challenges that arise in their careers.

There appears to be a significant gap between the requirements of the actual world and our educational system. Universities should incorporate interactive learning methods, foster teamwork and collaboration in projects, provide opportunities for internships and real-world experiences, offer communication and leadership workshops, and integrate soft skills training across the curriculum. These methods aid in the growth and improvement of students' communication, critical thinking, flexibility, and emotional intelligence, better preparing them for success in the job.

Furthermore, to ensure soft skills are taught in the curriculum, the study recommends "skillfying the syllabus" or "skillification". By skillfying the syllabus, higher education institutions may bridge the gap between academic learning and industry demands. This approach helps students become more job-ready and enhances their employability by providing hands-on experience, problem-solving opportunities, teamwork exercises, and exposure to industry-relevant projects. Skillfied syllabi aim to integrate practical skills, including soft skills and technical competencies, into the academic curriculum thereby producing graduates who possess a comprehensive skill set, combining both academic knowledge and practical expertise.

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Funding

None.

Conflict of Interest

This publication does not have any conflict of interest.

СИСТЕМАТИЧНИЙ ОГЛЯД ДОСЛІДЖЕНЬ М'ЯКИХ НАВИЧОК ДЛЯ ПРАЦЕВЛАШТУВАННЯ

Анотація.
У цьому систематичному огляді досліджень використано метод картографування науки для аналізу знань про м'які навички, необхідні для працевлаштування. Було відібрано статті з високим впливом, окреслено "інтелектуальну структуру" та зафіксовано обсяги, темпи розвитку й географічне поширення цієї літератури. Базу даних огляду становили 45 англомовних документів, індексованих у Scopus, опублікованих у період з 2013 по 2023 роки.

Огляд показав, що кількість документів про м'які навички для працевлаштування дещо зросла за останні роки, із середнім показником у 6 документів на рік у період з 2017 до 2021 року. У цій галузі переважають дослідники з Європи та Азії. Через аналіз співавторських цитувань було ідентифіковано чотири школи, які формують "інтелектуальну структуру" теми м'яких навичок для працевлаштування. Це розвиток м'яких навичок у студентів, очікування роботодавців від випускників, ключові м'які навички та оцінювання працевлаштованості.

Аналіз змісту документів дозволив дійти висновку, що в літературі існує чітка згода щодо складності понять працевлаштованості та кар'єрної готовності, які неможливо просто визначити, кількісно оцінити чи впровадити на практиці. Було виявлено значний розрив між вимогами реального світу та освітньою системою у сфері м'яких навичок.

Дослідження рекомендує "скіліфікацію навчальних програм" (англ. "skillification of the syllabus") для забезпечення викладання м'яких навичок у навчальному процесі.

Ключові слова: м'які навички, працевлаштування, вища освіта, випускники, роботодавці.