UNIVERSITY STUDENT PERCEIVED EMPLOYABILITY: BIBLIOMETRIC ANALYSIS

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Abstrak

Konsep kelayakan kerja yang dirasakan (*perceived employability*) pada mahasiswa menjadi faktor utama yang mendorong rasa percaya diri mereka dalam memasuki dunia kerja, membentuk cara pandang mereka terhadap keterampilan, prestasi akademik, dan potensi karir di masa depan. Penelitian ini bertujuan untuk mengidentifikasi dan menganalisis tren penelitian *perceived employability* mahasiswa dalam satu dekade. Penelitian ini menggunakan metode analisis bibliometrik dengan menggunakan SCOPUS sebagai. Kata kunci yang digunakan dalam pencarian literatur adakah perceived employability. Analisis dilakukan dengan bantuan VOSviewer dan Microsoft Excel. Analisis bibliometrik yang dilakukan menunjukkan lima klaster, yaitu jenis dokumen, kepengarangan, institusi, bidang studi, trend, dan arah penelitian di masa mendatang. Kelima klaster tersebut menjelaskan bahwa *perceived employability* mahasiswa dibahas dalam berbagai bidang seperti elemen inti selama kuliah, faktor internal, hasil, persepsi, dan kewirausahaan. Bagi penelitian selanjutnya, diharapkan peneliti dapat membahas persepsi kemampuan kerja terkait dengan topik-topik yang telah disebutkan pada bagian pembahasan.

Keywords: mahasiswa; perceived employability; self-perceived employability

Abstract

Perceived employability among university students is the driving force behind their confidence in entering the job market, shaping how they view their skills, academic achievements, and future career potential. This study seeks to explore and analyze the research trend of perceived employability among university student in one decade. Using literature review with a bibliometric approach and SCOPUS database for this study and used university student perceived employability as the main keyword. The analysis was conducted using VOSviewer and Microsoft Excel. The bibliometric analysis included document type, authorship, institution, subject area, growth trend, and future research directions. The result shows 5 clusters explained that perceived employability among university student is discussed in various fields such as core elements during university, internal factors, outcomes, perception, and entrepreneurship. For future research, it is expected that researchers can discuss perceived employability related to the topics mentioned in the discussion section.

Keywords: perceived employability; self-perceived employability; university students

INTRODUCTION

In current global competitive job market era, employability is a crucial aspect and the driving force in higher education (Crasta & Shailashri, 2023). It is estimated that by 2025, 85 million jobs currently performed by humans will be replaced by machines, while 97 million new jobs will emerge as a result of the adaptation to changes in the workforce involving humans, machines, and algorithms (Nasa et al., 2022). Perceptions of employment have evolved alongside the development of employability, undergoing periodic changes throughout different life stages (Noori & Azmi, 2021). This growth involves a long-term transition as individuals adapt to changing work environments and requirements. Defining employability as a

multidimensional concept in its present state acknowledges that employability is no longer solely about technical skills or qualifications. According to Rothwell dan Arnold (2007), employability has come to emphasize personal beliefs related to skill development from an individual's perspective.

Perceived employability (PE) is a concept of employability that originates from the fields of management and psychology. It emphasizes on the outcome of individuals' perceived outcomes regarding their employability, thereby simplifying the complexity and variation of individual employment opportunities from the standpoint of "competence" (such as employability skills) (Sakaki, 2022). Rothwell dan Arnold (2007) suggested that perceived employability refers to an individual's subjective belief about their ability to retain their current job or secure a desired position. Vanhercke et al. (2014) reviewed previous studies, it was proposed that perceived employability reflects an individual's perception of the possibility of obtaining and maintaining employment, whether in their current role or future opportunities. Perceived employability is classified under individual employability, which is generally based on the broader concept of employability influenced by both personal and contextual factors (Batistic & Tymon, 2017).

Research on perceived employability has gained considerable attention in the past decade (Akkermans & Kubasch, 2017; Noori & Azmi, 2021). Previous research on perceived employability has generally been conducted in broader contexts and lacks specific focus on university students (Jain & Singla, 2024). Study examining university student populations were published around 2021 (Noori & Azmi, 2021), indicating the need for more recent research to reflect current trend of university student perceived employability. The concept of perceived employability is crucial in understanding how university students view their ability to secure future employment, and it has sparked growing academic attention. Under these conditions, it is essential to explore significant research directions, trending topics and their potential effects. In this study, several research questions were made, namely 1) How has the trend of university students PE research grown in a decade? 3) mapping studies related to university students PE and 3) Research recommendations on university students PE in the future?

METHOD

This study using literature research as a method. This study used a bibliometric approach. Bibliometric analysis is generally categorized into performance and science mapping analyses (Donthu et al., 2021). The data source in this study was obtained from the database in SCOPUS using research in 2014 to 2024 with keyword and search string "perceived" OR "perceive" OR "Self Perceived" AND "Employability" AND "University" OR "College" AND "Students". Reasons for gathering literature review of the last 10 years are the following: (a) ensure the analysis captures the most recent decade of research (Umar et al., 2024) reflecting current trends, policies, and challenges in university student's perceived employability and (b) research contributions in or around 2014 mark a rise in interest, with key papers published that helped advance measurement models and theoretical frameworks. Scopus was selected as the sole database for this bibliometric analysis based on empirical evidence regarding its coverage, data quality, and relevance for bibliometric research. Compared to other databases, Scopus offers more consistent author and affiliation metadata, which is critical for accurate co-authorship, citation, and institutional analysis (Mongeon & Paul, 2016). Furthermore Scopus has a larger proportion of exclusive journals compare to Web of Science or Google scholar (Mongeon & Paul, 2016). The data processed using the help of Microsoft Excel and VOSviever applications. VOSviewer is done by analyzing co-occurrence.
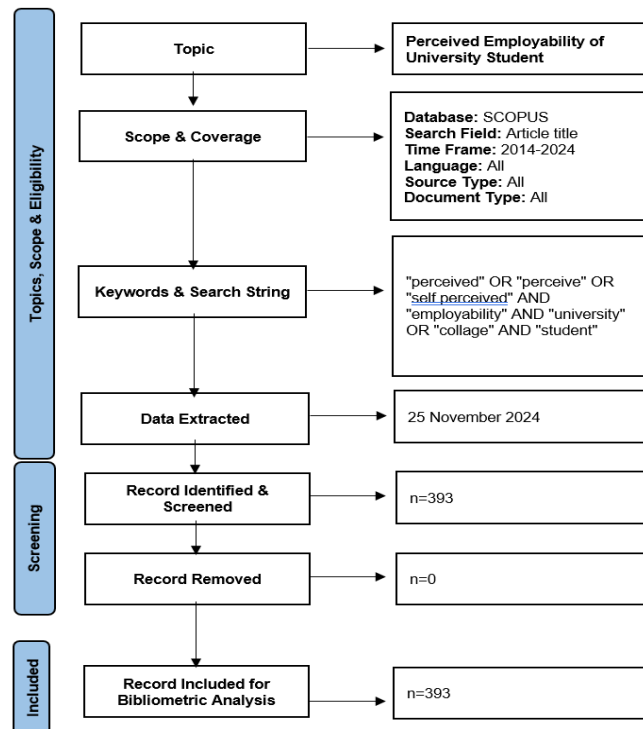
Figure 1. Flow diagram of research strategy

RESULT AND DISCUSSION

Based on the results of bibliometrics, it was found that the development of publications has grown significantly over the past decade. The total growth of publications can be seen in the chart below (Figure 2). Publications from 2014 to 2024 has increased steadily, rising from 14 in 2014 to 77 in 2024 with a noticeable upward trend after 2020. However, in 2020 there was a significant decrease in the number of publications, which can be attributed to the global pandemic. Despite this setback, the overall growth trajectory resumed strongly after 2020, with both publications and citations continuing to rise especially in 2024.
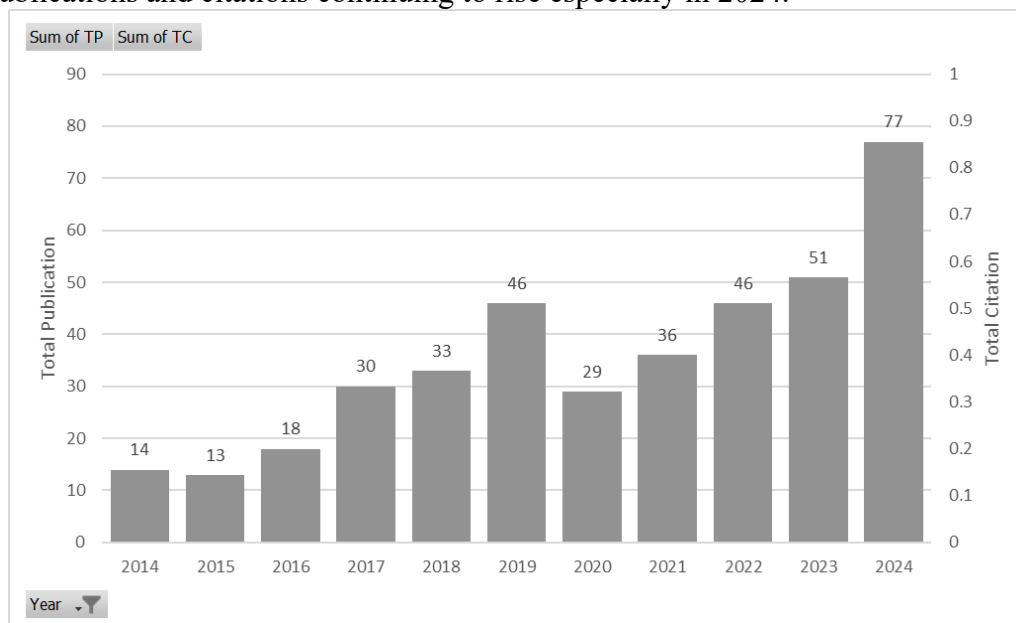
Note: TP= Total Publications
Figure 2. Trends in the Growth of University Student PE Research

Based on the SCOPUS database presented in Table 1, the most prolific author is Bennertt, D (TP=12), followed by Donald, W.E. (TP=9), Mariani, M.G. (TP=8), Chiesa, R. (TP=7), Jackson, D. (TP=7), Nimmi, P.M. (TP=7), Guglielmi, D. (TP=6), Ananthram, S. (TP=5), Ma, Y. (TP=5), Petruzziello, G. (TP=5), Raty, H. (TP=5), Agnihotri, S. (TP=4), Chukwuedo, S.O. (TP=4), Kasanen, K. (TP=4), Komulainen, K. (TP=4), Rothwell, A. (TP=4), and the other authors who each have a total of three publication.

In subject areas related to university student perceived employability, there are social sciences (TP=309), business, management and accounting (TP=118), psychology (TP=36), computer science (TP=33), engineering (TP=33), arts and humanities (TP=20), economics, econometrics and finance (TP=17), environmental science (TP=15), medicine (TP=15), energy (13), followed by fields such as decision sciences, mathematics, nursing, agricultural and biological sciences, biochemistry, genetics and molecular biology, chemical engineering, health professions, multidisciplinary, immunology and microbiology, neuroscience, pharmacology, toxicology and pharmaceutics and veterinary each with fewer than ten total publications. The types of scholarly works related to university student perceived employability include articles (TP=342), conference paper (TP=28), book chapter (TP=21), conference review (TP=1) dan review (TP=1).

The top ten institution or organizations with the most publications on university student perceived employability are University of Southampton (TP=13), Curtin University (TP=11), Bond University (TP=11), Monash University (TP=10), Griffith University (TP=9), Edith Cowan University (TP=9), Universidad de Sevilla (TP=8), Alma Mater Studiorum Università di Bologna (TP=7), Ronin Institute (TP=7), Southampton Business School (TP=7), Deakin University (TP=6), The University of Western Australia (TP=6), Universiti Tun Hussein Onn Malaysia (TP=6), followed by various universities such as Lanzhou University, Kingston University, Loughborough University, School of Business and Economics, Loughborough University, Nottingham Trent University, Victoria University, Turun yliopisto, La Trobe University, United Arab Emirates University, University of Wollongong, Radboud Universiteit, Nnamdi Azikiwe University, Open Universiteit, Universidade de Aveiro, Hubei University, Universiteit Gent, Amrita School of Business, Itä-Suomen yliopisto and Universitat Oberta de Catalunya each with fewer than five total publications.

The countries with the most research on this topic include United Kingdom (TP=97), Australia (TP=78), Spain (TP=32), United States (TP=29), China (24), India (TP=18), Italy (TP=18), South Africa (TP=18), Malaysia (TP=17), Netherlands (TP=11), and another country with less than 10 publications.

Table 1. Popularity Result per Category in Bibliometric Analysis

Categories	Details	Total Publications (TP)	Percentage (%)
Author(s)	Bennett, D.	12	3.05%
Subject Area	Social Sciences	309	78.63%
Document Type	Article	342	87.02%
Journal Name	Higher Education Skills And Work Based Learning	27	6.87%
Institution(s)	University of Southampton	13	3.31%
Region/Country	United Kingdom	97	24.68%

Based on the result of co-occurrence analysis obtained from VOSviewer (**Figure 3**), five clusters or themes each represented by a different color. It is further described as follows:

a. Cluster 1 (red): 20 items related to emerging topics such as career-adaptability, career-planning, career readiness, self-efficacy.

b. Cluster 2 (green): 17 items related to emerging topics such as knowledge, learning, motivation, self-concept.

c. Cluster 3 (blue): 10 items related to emerging topics such as job market, labor market, employment and higher education institution.

d. Cluster 4 (yellow): 9 items emerging topics such as satisfaction, decision making, sustainability.

e. Cluster 5 (purple): 8 items emerging topics such as entrepreneurial intention, entrepreneurship education and human capital.
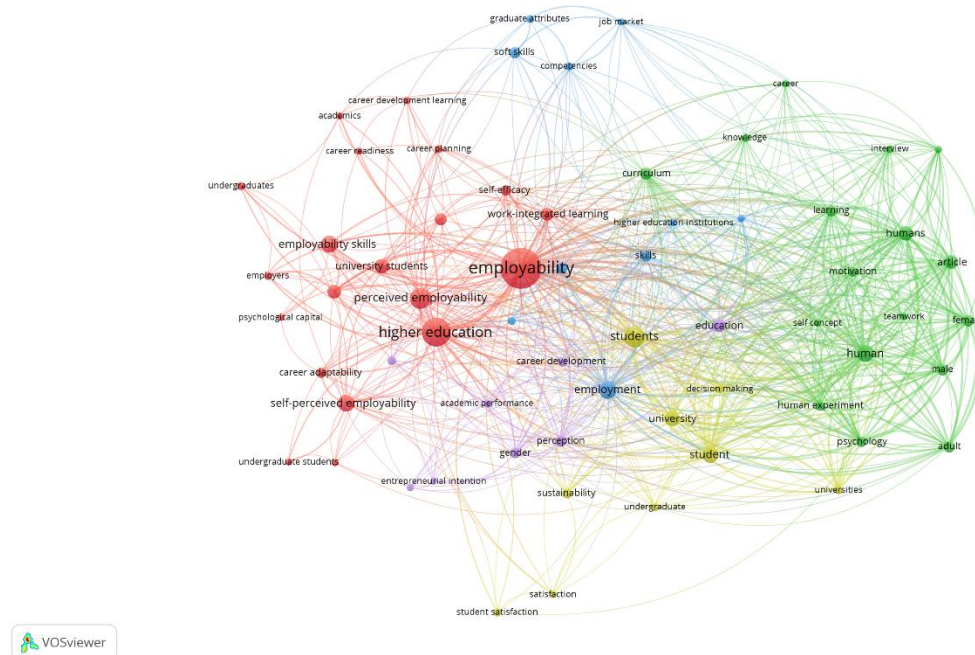
Figure 3. Result co-occurrence analysis

The trend of university student perceived employability in the last decade has growing until now. In 2014 there were 14 publications related to university student perceived employability, which has significantly increased in 2024 with 77 publications. University student perceived employability is widely published in article journals (TP= 346). The author with most publications is Bennett, D. (TP=12) and Donald, W.E. (TP=9). The institution most actively publishing are the University of Southampton (TP=13) followed by Curtin University (TP=11) and Bond University (TP=11). University student perceived employability is found in many subjects, such as Social Sciences (TP=309) and Business, Management and Accounting (TP=118).

Based on the result of Vosviewer analysis in Figure 3, in cluster 1, university student PE topics are widely discussed related to career development learning (CDL), career-adaptability (CA), career readiness (CR), and career-planning (CP) which collectively reflect the core elements of employability preparation during higher education. CDL serves as a valuable guide and educational resource for students (Ho et al., 2023), which implemented via programs like internships, industry project units, career fairs, career talks, networking opportunities, and job application support help students gain a deeper understanding of the labor market and increase

their confidence in pursuing future employment (Bridgstock et al., 2019; Ho et al., 2023). Meanwhile one of the resources needed by student to face the career transition is CA (Monteiro et al., 2020), which play an essential role for navigating the transition from university to the labour market, as it requires adapting to evolving circumstances (Monteiro et al., 2019). Studies indicate that effective career planning fosters self-awareness and encourages students to develop skills and competencies aligned with industry needs, ultimately enhancing their perceived employability (Ma & Chen, 2024). Finally their technical expertise, soft skills, adaptability, and resilience, all of which are essential for career development in a dynamic job market will reflected in their CR (Lucero, 2024).

Topics widely discussed in cluster 2 include knowledge, learning, motivation. These elements focus on the internal factors that impact students' preparedness for the job market and their capacity to improve their employability. Research in this area emphasizes how knowledge acquisition and continuous learning contribute to a student's readiness to meet the demands of future employment. Motivation is seen as a driving force that shapes students' confidence to undertake tasks, adapt, and persist in achieving goals, even in the face of multiple challenges (Shen et al., 2024) which ultimately will boosting their perceived employability. The focus is on how internal factors like motivation and the acquisition of relevant knowledge can improve students' chances of securing employment by enhancing their self-confidence and perceived value in the labor market (Fugate et al., 2004; Rothwell & Arnold, 2007). These topics are crucial in understanding how students perceive their future employability and how they can actively shape it through learning and motivation.

The topics widely discussed and researched in cluster 3 include job market, labor market and employment, which reflect the broader outcomes of student perceived employability. Employers believed that graduates are still not fully prepared to enter the labor market due to a lack of essential skills (Tajuddin et al., 2022), with the COVID-19 pandemic serving as a defining factor that reshaped global labor markets. Perceived labor market conditions refer to students' evaluation of the demand for their field of study in the job market, particularly within their local or regional areas (Rothwell et al., 2009). The pandemic has emphasized the need for flexibility and adaptability, as changes in the demand for certain industries and skills have become more pronounced.

Topics in Cluster 4 is discussed in terms of satisfaction, decision-making, and sustainability which influence students' perceptions of their employability and career development. Personal satisfaction with current abilities and knowledge shapes students' perceptions of employability, while decision-making serves as the final step toward career outcomes. This suggests that students who are satisfied with their academic achievements, skills, and personal development tend to view themselves as more capable and competitive in the job market (Hsu et al., 2022). Additionally, building a sustainable career start is influenced by career shocks, where negative shocks can weaken the link between career competencies and perceived employability, while positive shocks strengthen it (Blokker et al., 2019).

Topics widely discussed in cluster 5 include career development, entrepreneurial intention, entrepreneurship education, and human capital. Career development is a crucial factor in shaping students' perceptions of their employability. When students perceive that they are employable, they are more likely to take proactive steps toward career development (Grosemans et al., 2024), consistent with Social Cognitive Career Theory which emphasis on how beliefs and expectations guide career behaviors (Lent et al., 1994). Individual Entrepreneurial Intention a conscious awareness and strong belief by an individual in their

intention to establish a new business venture, accompanied by plans to pursue it (Donald et al., 2024) which is determinants of employability and employment outcomes (Barba-Sánchez et al., 2022; Mei & Symaco, 2022). This intention is strongly supported by entrepreneurial education, which equips individuals with the knowledge, skills, and mindset needed to identify opportunities, innovate, and navigate challenges in the business world. Human capital, Human capital encompasses the knowledge, skills, and abilities required to effectively perform a job, is one of the antecedent influencing students' perceived employability (Forrier et al., 2009; Peeters et al., 2020). In cluster 5, the relationship between career development, entrepreneurial intention, and human capital is examined in terms of how these factors contribute to students' perceived employability.

CONCLUSION

The trend of university student perceived employability research has fluctuated over the past decade. A bibliometric search was conducted using the Scopus database with the query: "perceived" OR "perceive" OR "Self Perceived" AND "Employability" AND "University" OR "College" AND "Students", covering publications from the last ten years. The analysis indicates that discussions about university student perceived employability are widely published in journal articles and frequently addressed in social sciences. The most prominent author on this area is Bennett, D, and the University of Southampton has contributed the most publications related to university students' perceived employability. Five clusters were found based on analysis using Vosviewer. All of five clusters explained that PE is discussed in various fields, such as core elements during university, internal factors, outcomes, perception, and entrepreneurship. The implication of this research is that career development programs in higher education should be aligned with industry needs and focused on strengthening students' motivation, skills, and awareness to improve their perceived employability. For future research, it is recommended to explore PE in relation to the topics discussed in the discussion section. The limitation of this study are: 1) researcher only use SCOPUS database, and 2) the analysis focuses solely on trends over the past decade. The suggestion for future research to use a wider range of databases to obtain more comprehensive data. Additionally, researchers may consider examining trends over a ten-year period or more.

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