FACTORS INFLUENCING THE EMPLOYABILITY OF TEACHERS’ UNIVERSITY STUDENTS: AN EMPIRICAL STUDY FROM SICHUAN PROVINCE, CHINA

Su Xu¹
Chalermpol Tapsai²
Muhammad Shahid Khan³

ABSTRACT

Introduction: This paper explores the complexities of employability among graduates of teachers’ universities within the evolving landscape of China’s higher education and labor market. Drawing from market demand theory and aligning with the emphasis on “Employment” in the 20th National Congress Report of the Communist Party of China, the study meticulously analyzes the multifaceted dimensions of employability, encompassing human capital, psychological capital, and career identity. Through a cohesive theoretical framework, the research unveils the nuanced intricacies of employability, providing valuable insights for academia and practical application.

Objective: The research objectives of this study are to analyze the individual factors that influence the employability of teachers’ university students, test the model and hypotheses regarding the individual factors that influence the employability of teachers’ university students, and explain the reasons behind each significant individual factor that influences the employability of teachers’ university students and explore their interrelationships.

Theoretical Framework: It includes a literature review on labor market theory as a moderating variable. The relationships among these variables are examined, leading to the development of the research conceptual framework for the employability of teachers’ university students and the formulation of hypotheses based on theory and literature analysis.

Method: To ensure the reliability and validity of the findings, this study employs a quantitative research approach. The sample is selected using proportional sampling and systematic sampling techniques, which enhance the representativeness of the sample. A questionnaire is adapted from previous studies to collect data on the employability of teachers’ university students. The use of a validated questionnaire from past research ensures the consistency and comparability of the data collected.

Results and Discussion: Based on the quantitative research data, it is evident that human capital, encompassing students’ professional skills, practical skills, and generic skills, along with psychological capital, comprising self-efficacy, optimism, hope, and resilience, play a pivotal role in shaping the employability of teachers’ university students. And career identity also can enhance the employability of teachers’ university students.

Keywords: Teachers’ university students, Employability, Human capital, Psychological capital, Career identity, Labor market.

¹ Innovation Management College, Suan Sunandha Rajabhat University, Bangkok 10300, Thailand. E-mail: 649094399@qq.com
² Innovation Management College, Suan Sunandha Rajabhat University, Bangkok, Thailand. E-mail: chalermpol.ta@ssru.ac.th
³ Innovation Management College, Suan Sunandha Rajabhat University, Bangkok, Thailand. E-mail: shahid.kh@ssru.ac.th/shahid8762@gmail.com Orcid: https://orcid.org/0000-0001-8969-4763

Factors Influencing the Employability of Teachers’ University Students: An Empirical Study from Sichuan Province, China

RESUMO
Introdução: Este artigo explora as complexidades da empregabilidade entre graduados de universidades de professores dentro do cenário em evolução do ensino superior e do mercado de trabalho da China. Partindo da teoria da demanda de mercado e alinhado com a ênfase no “Emprego” no 20º Relatório do Congresso Nacional do Partido Comunista Chinês, o estudo analisa meticulosamente as dimensões multifacéticas da empregabilidade, abrangendo capital humano, capital psicológico e identidade de carreira. Através de um quadro teórico coeso, a pesquisa revela as nuances da empregabilidade, proporcionando insights valiosos para a academia e aplicação prática.

Objetivo: Os objetivos de pesquisa deste estudo são analisar os fatores individuais que influenciam a empregabilidade dos estudantes universitários de professores, testar o modelo e as hipóteses sobre os fatores individuais que influenciam a empregabilidade dos estudantes universitários de professores e explicar as razões por trás de cada fator individual significativo que influencia a empregabilidade dos estudantes universitários de professores e explorar suas inter-relações.

Estrutura Teórica: Inclui uma revisão da literatura sobre a teoria do mercado de trabalho como uma variável moderadora. As relações entre essas variáveis são examinadas, levando ao desenvolvimento da estrutura conceitual de pesquisa para a empregabilidade de estudantes universitários de professores e formulação de hipóteses baseadas na análise teórica e literária.

Método: Para garantir a confiabilidade e validade dos resultados, este estudo emprega uma abordagem de pesquisa quantitativa. A amostra é selecionada por meio de técnicas de amostragem proporcional e sistemática, que aumentam a representatividade da amostra. Um questionário é adaptado de estudos anteriores para coletar dados sobre a empregabilidade dos estudantes universitários de professores. O uso de um questionário validado de pesquisas anteriores garante a consistência e a comparabilidade dos dados coletados.

Resultados e Discussão: Com base nos dados quantitativos da pesquisa, é evidente que o capital humano, abrangendo as habilidades profissionais dos alunos, habilidades práticas e habilidades genéricas, juntamente com o capital psicológico, compreendendo a autoeficácia, otimismo, esperança e resiliência, desempenham um papel fundamental na formação da empregabilidade dos estudantes universitários de professores. A identidade de carreira também pode aumentar a empregabilidade dos estudantes universitários de professores.

Palavras-chave: Professores universitários, Empregabilidade, Capital humano, Capital psicológico, Identidade de carreira, Mercado de trabalho.

FACTORES QUE INFLUYEN EN LA EMPLEABILIDAD DE LOS ESTUDIANTES UNIVERSITARIOS DE LOS PROFESORES: UN ESTUDIO EMPÍRICO DE LA PROVINCIA DE SICHUAN, CHINA

RESUMEN
Introducción: Este artículo explora las complejidades de la empleabilidad entre los graduados de las universidades de profesores dentro del cambiante panorama de la educación superior y el mercado laboral de China. Partiendo de la teoría de la demanda del mercado y alineándose con el énfasis en el “Empleo” en el Informe del 20º Congreso Nacional del Partido Comunista de China, el estudio analiza meticulosamente las dimensiones multifacéticas de la empleabilidad, que abarcan el capital humano, el capital psicológico y la identidad profesional. A través de un marco teórico cohesivo, la investigación revela las complejidades matizadas de la empleabilidad, proporcionando información valiosa para la academia y la aplicación práctica.

Objetivo: Los objetivos de investigación de este estudio son analizar los factores individuales que influyen en la empleabilidad de los estudiantes universitarios de los profesores, probar el modelo y las hipóteses con respecto a los factores individuales que influyen en la empleabilidad de los estudiantes universitarios de los profesores, y explicar las razones detrás de cada factor individual significativo que influye en la empleabilidad de los estudiantes universitarios de los profesores y explorar sus interrelaciones.
**Marco teórico:** incluye una revisión de la literatura sobre la teoría del mercado laboral como variable moderadora. Se examinan las relaciones entre estas variables, que conducen al desarrollo del marco conceptual de investigación para la empleabilidad de los estudiantes universitarios docentes y a la formulación de hipótesis basadas en la teoría y el análisis de la literatura.

**Método:** Para asegurar la fiabilidad y validez de los hallazgos, este estudio emplea un enfoque de investigación cuantitativa. La muestra se selecciona mediante muestreo proporcional y técnicas de muestreo sistemático, que mejoran la representatividad de la muestra. Se adapta un cuestionario de estudios anteriores para recoger datos sobre la empleabilidad de los estudiantes universitarios de los profesores. El uso de un cuestionario validado de investigaciones anteriores garantiza la coherencia y comparabilidad de los datos recopilados.

**Resultados y discusión:** A partir de los datos cuantitativos de la investigación, es evidente que el capital humano, que abarca las habilidades profesionales de los estudiantes, las habilidades prácticas y las habilidades genéricas, junto con el capital psicológico, que comprende la autoeficacia, el optimismo, la esperanza y la resiliencia, desempeñan un papel fundamental en la configuración de la empleabilidad de los estudiantes universitarios de los maestros. Y la identidad profesional también puede mejorar la empleabilidad de los estudiantes universitarios de los profesores.

**Palabras clave:** Estudiantes universitarios docentes, Empleabilidad, Capital humano, Capital psicológico, Identidad profesional, Mercado laboral.

RGSA adota a Licença de Atribuição CC BY do Creative Commons (https://creativecommons.org/licenses/by/4.0/).

1 INTRODUCTION

The 20th National Congress Report of the Communist Party of China underscored the pivotal role of employment in enhancing people's well-being. In the face of a shifting economic landscape marked by reduced growth, the heightened employment pressure accentuates the need for macroeconomic policies to sustain growth and secure jobs. While China's overall employment situation is favorable, persistent challenges remain. Particularly, the career prospects of university graduates emerge as a vital and complex component of China's employment strategy, attracting widespread societal concern and scholarly attention.

Amidst rapid growth in higher education, China's university graduate population has consistently increased, surpassing millions annually since 2022. Figure 1 presents official graduate data for the past five years, highlighting this upward trend.
In the current challenging economic landscape, there is an increasing imperative to promote effective employment for college graduates. This urgency has led to extensive research into the acquisition and maintenance of jobs. Yorke (2006) defines employability as encompassing skills and attributes that enhance job prospects. Alvarez-González et al. (2017) characterize employability as an individual's subjective perception of their ability to secure, maintain, or acquire a new job. Clarke (2018) links employability to career identity and social capital, while Bennett (2020) defines it as the process of equipping students with the necessary skills and knowledge to navigate their post-graduate life and careers successfully. As the global economy experiences a steady decline and unemployment rates soar, the enhancement of individual employability has become a crucial research topic. In this challenging yet opportunistic era, there is a growing concern across various sectors on how to assist workers in improving their skills and qualities to enhance their competitiveness in the job market.

Graduates are pivotal contributors to the labor market and national development (Tomlinson, 2016). Enhancing graduate employability is strategically vital for China, as graduates are essential resources for the nation, significantly influencing its competitiveness. Therefore, fostering collaboration among government entities, universities, employers, and students themselves is crucial for effectively developing employability skills (Su & Zhang, 2015).

Employability serves as a crucial bridge connecting higher education and the labor market, with employers and students playing central roles. In this dynamic labor market,
employers represent the demand side, while universities constitute the supply side. The demand of employers is intricately intertwined with their strategic business development, making it responsive to prevailing market conditions. As Clarke (2018) highlights, employability is inherently shaped by the interplay between these supply and demand factors within the labor market. Hence, studying university graduates' employability is highly valuable for understanding job market needs, tackling employment hurdles, and nurturing personal growth to enhance employability. This research aids in career progression and societal advancement.

In China, "teachers' universities" refers to teacher training institutions, with two translations: "normal universities" and "teachers' universities." This paper adopts the term "teachers' university" to avoid confusion. Historically, these institutions primarily focused on cultivating teaching professionals, but in modern times, they have evolved to encompass comprehensive talent development in various disciplines. Researching the employability of teachers' university students is highly significant, as it contributes to enhancing their career prospects and societal progress by understanding job market demands, addressing employment challenges, and fostering individual development.

The research objectives of this study are to analyze the individual factors that influence the employability of teachers' university students, test the model and hypotheses regarding the individual factors that influence the employability of teachers' university students, and explain the reasons behind each significant individual factor that influences the employability of teachers' university students and explore their interrelationships.

This study holds significant academic and practical significance as it bridges the gap between micro-level student perspectives and macro-level market demands, enriching university students' employability theory. It delves into the complexities of employment challenges amidst higher education massification, contributing to talent cultivation, university transformation, and advancing China's education theory. Additionally, the study integrates education, management, and economics theories to enhance the depth of the university students' employability field and optimize relevant theories. On a practical level, the research constructs a comprehensive employability model for university students, guiding talent development strategies and policy enhancements. By shifting the focus from job outcomes to a holistic approach to education, it addresses the university-society talent gap, benefiting overall student competence. The study also offers a scientific assessment model that aids candidates in achieving better employment outcomes, while tackling supply-demand imbalances and contributing to the sustainable growth of higher education. Ultimately, this research paves the
way for higher-quality employment opportunities and human resource development with far-reaching implications.

2 LITERATURE REVIEW

This section provides a comprehensive review of relevant literature, focusing on theoretical concepts central to the employability of university students. It includes a literature review on labor market theory as a moderating variable. The relationships among these variables are examined, leading to the development of the research conceptual framework for the employability of teachers' university students and the formulation of hypotheses based on theory and literature analysis.

2.1 THE DEFINITION AND EVOLUTION OF EMPLOYABILITY

The historical evolution of the concept of employability traces back to the early 20th century, with Gazier (1999) being an early researcher in this area. In the 1990s, employability gained prominence as an analytical tool for labor policies in Europe and America, particularly focusing on individual potential and university students' job concerns, elevating its importance in employment capability research (Hillage & Pollard, 1999). Employability shifted in the early 21st century to prioritize technical skills and knowledge for gaining and sustaining employment, with a subsequent focus on attitudes and abilities (Harvey, 2001). Yorke and Knight (2006) defined employability as a mix of achievements, skills, and personal attributes benefiting graduates in obtaining and succeeding in jobs, thus enriching individuals, the workforce, the community, and the economy. This also encompasses terms like core skills, transferable skills, and 21st-century skills (Bowman, 2010). Bennett (2019) emphasized that in higher education, employability involves preparing students to excel in life and work beyond graduation.

In the past decade, rising global unemployment rates have spurred heightened research into employability skills, encompassing competencies like problem-solving, communication, adaptability, teamwork, and lifelong learning. Employability now signifies a blend of skills, knowledge, and personal attributes (Vargas et al., 2018). There has been a pronounced shift towards viewing employability holistically and across one's life, emphasizing transferable skills, entrepreneurship, creativity, cultural acumen, digital literacy, and adeptness in intricate
Factors Influencing the Employability of Teachers’ University Students: An Empirical Study from Sichuan Province, China

and unpredictable settings (Reid, 2016). Rothwell and Rothwell (2017) characterize employability as a human resource strategy, advocating for prioritizing employees' talent development to propel company growth. Bennett (2019) defines employability as the personal capacity "to discover, generate, and maintain meaningful work throughout one's career lifespan."

The evolving interpretations of employability mirror the economic backdrop and labor market dynamics of distinct periods, underscoring employment objectives on multiple scales—national, organizational, and individual—within each context. In China, research on employability primarily focused on university students and migrant workers and has been influenced by foreign research centered on "human capital" aspects like skills and abilities (Tan, 2011). Zheng (2002) defines college student employability as the capacity gained through comprehensive education, enabling them to realize employment goals and societal value. Jin (2012) considers college students' employability a fusion of knowledge, skills, and personal attributes shaped for work purposes.

In conclusion, the absence of a universal consensus on the conceptual definition of employability exists due to varied research viewpoints, both within the country and on a global scale. While the interpretations of employability diverge and evolve, their essence remains consistent. Employability fundamentally denotes a comprehensive capacity directed towards successful employment. This comprehensive understanding of employability is essential for addressing the evolving needs of the workforce and the economy.

2.2 RELATED THEORETICAL FRAMEWORK AND DIMENSIONS OF THE EMPLOYABILITY OF UNIVERSITY STUDENTS

The architecture of university students' employability presents a complex and multifaceted system, influenced by disciplinary and research perspective variations. This framework is intricately tailored for the dynamic job market, relying on individual attributes, personal surroundings, labor market coping strategies, and external structural elements. These components interact and mutually shape one another, coalescing and evolving to underpin university students’ employability. While the existing body of literature has primarily focused on dissecting individual components and structural facets, there is a notable gap in exploring the interconnectedness and evolving interplay among these elements. Internationally, influential models such as the USEM model, the Career EDGE model, and the psychosocial
construct model have emerged to map the structure of employability. Since the concept's inception by Zheng (2002), research on employability has steadily increased, particularly within the context of university students in China. Scholars have examined the various components and dimensions of university students' employability, encompassing abilities, skills, and traits, while also debating the merits of singular versus multidimensional perspectives. In recent years’ research, the main dimensions can be summarized in the following table 1.

### Table 1

**Analysis of the dimensions of college students’ employability by Chinese scholars**

<table>
<thead>
<tr>
<th>First-level dimension</th>
<th>Second-level dimension</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human capital</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social capital</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Psychological capital</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Career identity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Visible Traits</td>
<td>Temperament, Image, Academic Performance Awards, practical experience, professional certifications</td>
<td>Gao &amp; Qiao (2016)</td>
</tr>
<tr>
<td>Qualification</td>
<td>School background, family background, major type</td>
<td></td>
</tr>
<tr>
<td>Enhancement</td>
<td>Practical skills, innovation, and entrepreneurship skills, adaptability, career planning ability, learning ability, communication skills</td>
<td>Li (2017)</td>
</tr>
<tr>
<td>Personal Background</td>
<td>Teamwork ability, organizational Communication skills, social adaptability</td>
<td></td>
</tr>
<tr>
<td>Work Abilities</td>
<td>Dedication, work loyalty, career goals.</td>
<td></td>
</tr>
<tr>
<td>Social Skills</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Professional Ethics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge application skills</td>
<td>Basic professional knowledge, practical application ability, comprehensive learning ability, innovative capability, and breadth of knowledge application</td>
<td>Ma &amp; Wu (2020)</td>
</tr>
<tr>
<td>Interpersonal communication</td>
<td>Body language expression, written language writing, interpersonal relationships, self-confidence, image and temperament, and emphasis on personal etiquette</td>
<td></td>
</tr>
<tr>
<td>career planning analysis</td>
<td>Enterprise time scheduling and management, planning and preparation ability, analytical planning ability, attention to every detail, overall comprehension ability, and information processing capability, independent thinking, productivity, diligence, focus, adaptability, and stress management. Corporate legal awareness, teamwork consciousness honesty and integrity, and the ability to grasp the opportunity.</td>
<td></td>
</tr>
<tr>
<td>Proactive adaptation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sense of responsibility</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employment motivation</td>
<td>internal motivation, external motivation</td>
<td>Cheng (2023)</td>
</tr>
<tr>
<td>Workplace competence</td>
<td>job search skills, management skills, workplace competence, opportunity competence</td>
<td></td>
</tr>
<tr>
<td>Personal traits</td>
<td>basic traits, personality traits, physical fitness</td>
<td></td>
</tr>
<tr>
<td>Knowledge skills</td>
<td>professional skills, basic skills</td>
<td></td>
</tr>
</tbody>
</table>
The dynamic nature of the concept of employability is underscored by its diverse interpretations among individuals, reflecting the evolving societal understanding of this multifaceted construct. A comprehensive literature review has laid a robust theoretical foundation for the present study, shedding light on the complexities and nuances inherent in the conceptualization of employability. While discrepancies in the categorization of dimensions and elements of employability have been noted in prior research, a discernible pattern has emerged, particularly among university students, emphasizing the assessment of human and psychological capital, in conjunction with career identity. This consistent focus on these dimensions not only aligns with the contemporary discourse on employability but also provides a solid theoretical and empirical grounding for the independent variables under investigation in this study. Such alignment with prevailing theoretical frameworks and empirical evidence enhances the validity and relevance of the study, thereby contributing to the advancement of knowledge in the field of employability and related constructs.

2.3 HUMAN CAPITAL AND ITS IMPLICATION IN GRADUATES’ EMPLOYABILITY

In higher education, Human Capital Theory (HCT) offers insights into the relationship between education, human capital formation, and economic outcomes. HCT views education as an investment in acquiring skills and knowledge, with individuals weighing costs against benefits when pursuing education, emphasizing long-term economic returns (Becker, 1964). Additionally, educational credentials signal an individual's human capital level to employers, enhancing employability by signaling capabilities, even if skills don't directly align with job requirements (Spence, 1973).

Universities design curricula and methodologies to foster human capital through specialized knowledge and skill provision, aligning with HCT's focus on skill development for higher productivity and growth (Ma & Ding, 2010). Lifelong learning is recognized as crucial for staying relevant in a changing economy, with higher education encouraged to offer flexible programs and professional development to accumulate ongoing human capital (Becker, 1964).

In the job market, human capital, rooted in human capital theory, encompasses abilities cultivated through educational investments, significantly shaping graduates' job prospects and starting salaries (Su & Meng, 2012). Contrary to the "higher education, higher abilities" notion, practical skills outweigh academic qualifications and majors in job searches. This underscores
the importance of refining employability skills and competence for continuous human capital growth, enhancing individual quality.

In China, scholars have focused on enhancing college students' employability through human capital enhancement, identifying factors affecting employability, including political status, academic performance, English proficiency, computer skills, thesis publication, student leadership, internships, and scholarships (Huang, 2015). Crucial human capital components for future jobs include professional skills, extracurricular involvement, internships, and job-seeking prowess (Gao & Qiao, 2016). College students' human resources are categorized into learning, practical, and job-seeking abilities, thoroughly evaluating multi-dimensional impacts on employability (Xiao & Wang, 2018).

After an extensive literature review, it is evident that specific dimensions have consistently maintained their relevance—namely, students' professional skills, practical aptitudes, and generic competencies. These dimensions serve as the essential groundwork for investigating the correlation between the independent variable, human capital, and the employability of university students in the forthcoming research. This study aims to build a structural employability model for university students, aligning with the evolving understanding of human capital theory and its impact on employability.

2.4 PSYCHOLOGICAL CAPITAL AND ITS IMPLICATION IN GRADUATES’ EMPLOYABILITY

Psychological capital (PsyCap) is a concept introduced by Luthan (2006) that has been shown to bolster employee enthusiasm and optimal performance. It encompasses inner traits like self-esteem and health, as well as external elements like social support, aiding in goal pursuit and success. Luthans and Youssef-Morgan (2017) define psychological capital as confidence in facing challenges, attributing success positively, and adapting methods for goal achievement. Peterson et al. (2011) highlight PsyCap's influence on employees' subjective and objective performance, offering practical HR recommendations. Chinese scholars Zhao, Chen, and Hu (2019) echo that psychological capital fosters task confidence, persistence, adaptable efforts, and resilience after failures.

Research has demonstrated positive correlations between college students' psychological capital, vocational decision-making self-efficacy, and career planning (Wang, 2019). Additionally, psychological capital has a significant positive impact on employment
performance and job-seeking behaviors, with its different dimensions influencing these factors positively (Wang, 2019).

Psychological capital among college students refers to a positive and growth-oriented psychological state displayed in their pursuit of employment opportunities. It plays a crucial role in the employment process and is recognized as a key determinant for gaining a competitive edge. Therefore, this study includes psychological capital as one of the independent variables. Luthans et al. (2004) identified four components of psychological capital: self-efficacy, optimism, hope, and resilience, which are derived from positive psychology literature and provide the dimensions for this variable.

2.5 CAREER IDENTITY AND ITS IMPLICATION IN GRADUATES’ EMPLOYABILITY

Career identity, rooted in identity theory, refers to the expression of one's identity in their professional life. Meijers (1998) defines it as a meaningful network where individuals consciously link their motives, interests, and abilities to acceptable occupational roles, evolving through continuous learning from real-life experiences beyond work. This multidimensional construct is further expounded by Wei, Song, and Zhang (2013) as encompassing an individual's positive cognitive understanding, experiences, and behavioral inclinations toward their occupation and occupational roles, forming a comprehensive entity.

The relationship between career identity and higher education is crucial, as higher education plays a pivotal role in shaping career identity through skill development, exploration, identity formation, networking, and employability. It forms the foundation for professional identity and meaningful careers, ultimately impacting college students' employability. A well-defined career identity guides choices, motivates skill growth, aids networking, and enhances adaptability, thereby boosting employability. Additionally, employability experiences shape and refine career identity as individuals progress, influencing opportunities and providing crucial direction during the job search (Jiang, 2018).

The multidimensional structural system of career identity has been extensively researched globally, particularly in the context of university graduates' career identity. Kremer and Hofman (1981) identified centrality, values, solidarity, and self-expression as four dimensions of career identity, while Song and Wei (2006) explored various facets of occupation, including recognition, emotion, will, skill, expectation, and value. Recent research in China has identified three dimensions contributing to the measurement of career identity.
among prospective teachers, including career cognition, career emotion, and professional behavioral tendencies (Wei et al., 2013). These dimensions, combined with work by Hao (2014) on teachers' occupational identity, provide a valuable framework for understanding how career identity influences the employability of prospective teachers, ultimately benefiting the teaching career as a whole.

This comprehensive understanding of career identity and its dimensions is essential for improving preparation and support for aspiring teachers and enhancing the teaching profession.

2.6 THE LABOR MARKET THEORY AND ITS RELATIONSHIP WITH GRADUATES’ EMPLOYABILITY

The labor market's demand-supply dynamics are of paramount importance, as they shape job availability and influence economic growth. Katz and Murphy (1992) conducted a comprehensive analysis of factors driving relative wage changes over a 25-year period, linking wage inequality and structural shifts to changes in labor demand, such as those driven by technology and trade, and the supply of skilled workers. Autor's (2019) recent work focused on the impact of technology on labor, emphasizing the need for skill adaptation due to automation and AI. Additionally, Tyrsin and E.V.V. (2021) modeled factors like labor migration, informal employment, and the activity of the elderly population to balance labor supply and address shortages.

In the context of university student employment, the labor market profoundly shapes students' employability, reflecting the evolving socio-economic landscape, industry changes, and talent needs (Wang, 2018). This influence is further underscored by Li (2017), who emphasized the vital role of the labor market in shaping students' challenges and prospects by revealing the required skills and competencies amidst societal and market shifts.

Understanding and monitoring the fluctuations in the labor market is essential for enhancing students' job market competitiveness and aligning talent development with societal progress. This highlights the dynamic role of the labor market in driving career success and societal advancement.

The interaction between labor market demand and supply significantly influences college students' employability, shaped by multifaceted factors. The equilibrium between job openings and seekers establishes the market's competitiveness, while economic conditions dictate labor demand, favoring growth periods. The relevance and quality of education play a
pivotal role, as practical and in-demand skills enhance graduates' job prospects, whereas a mismatch impedes their success. Technological advancements, particularly automation, reshape job demand, favoring adaptable and technically skilled individuals. Furthermore, industry-specific trends accentuate labor shortages in some sectors, benefiting graduates with matching qualifications, while oversupplies challenge employment opportunities. These dynamics, as evidenced by research (Wang, 2017; Wang, 2018; Tran, L. T. et al., 2022), underscore the intricate relationship between labor market dynamics and students' career prospects.

College students' employability bridges higher education and labor market dynamics. Graduates meet employer demand (demand side), while universities supply education (supply side). Societal needs and labor conditions shape student demand by employers. Thus, universities should align education with market requirements for effective workforce preparation (Wen, 2006).

In their respective studies, Li (2017) and Wang (2018) examined the multifaceted nature of employability, focusing on factors such as professional skills, career planning, innovation, ethics, and the influence of supply, demand, and regulation within the labor market. While Li emphasized the importance of market-demand matching and the shaping of employability, Wang highlighted the significant role of colleges in shaping student employability. Building on this foundation, the current study delves into the employability of university graduates, taking into account the complex interplay of supply and demand dynamics involving higher education institutions, students, and broader societal factors.

Through an assessment of the labor market's influence on independent variables such as human capital, psychological capital, and career identity, this research aims to provide a comprehensive understanding of employability within the context of higher education. Drawing on extensive theoretical analysis and a thorough review of existing literature, the study develops a robust conceptual framework for the employability of teacher university students and presents six hypotheses, as depicted in Figure 2. This framework serves as a valuable tool for investigating and understanding the intricate mechanisms that underpin the employability of teachers’ university students, offering insights that can inform policy and practice within the field of teacher education.
Hypothesis 1: A positive relationship exists between human capital and the employability of teachers’ university students.

Hypothesis 2: A positive relationship exists between psychological capital and the employability of teachers’ university students.

Hypothesis 3: A positive relationship exists between career identity and the employability of teachers’ university students.

Hypothesis 4: The relationship between human capital and the employability of teachers’ university students is moderated by the labor market.

Hypothesis 5: The relationship between psychological capital and the employability of teachers’ university students is moderated by the labor market.

Hypothesis 6: The relationship between career identity and the employability of teachers’ university students is moderated by the labor market.

3 RESEARCH METHODOLOGY

To ensure the reliability and validity of the findings, this study employs a quantitative research approach. The sample is selected using proportional sampling and systematic sampling techniques, which enhance the representativeness of the sample. A questionnaire is adapted from previous studies to collect data on the employability of teachers’ university students. The
use of a validated questionnaire from past research ensures the consistency and comparability of the data collected.

3.1 POPULATION AND SAMPLE

In China, higher education is categorized into different levels: junior college, undergraduate, graduate, and doctorate. Undergraduate students make up the largest portion of Chinese higher education and have the highest employment demand. This paper uses the term "teachers' university" to refer to all teacher training institutions. Undergraduate programs in Chinese universities typically last four years. For this study, "teachers' university students" specifically refers to those enrolled in the years 2019-2022.

This study is conducted solely in Sichuan province, China due to the following reasons: (1) Sichuan Province serves as a prominent educational hub in the southwestern region of China, housing numerous higher education institutions; (2) The universities in Sichuan Province offer a wide range of academic disciplines, including natural sciences, social sciences, engineering technology, arts, and more; (3) The student body in Sichuan Province is diverse, with students coming from various regions of China, ensuring a certain level of representativeness. The study includes seven undergraduate universities in Sichuan Province, with a total of 143,890 students meeting the study criteria.

According to Taro Yamane's formula for determining sample size, the study's sample size is approximately 399, as demonstrated below.

\[
\begin{align*}
\hat{n} &= \frac{143,890}{1 + 143,890 \times 0.05^2} = 398.89112 \\ &\approx 399
\end{align*}
\]

Based on a population size of 143,890 and a desired error level of 0.05, a sample size of approximately 600 individuals was determined, accounting for a 15% non-response rate. Proportional sampling was then employed to allocate the sample size for each of the seven teachers' universities. Subsequently, systematic sampling was applied within each university to further enhance the representativeness and comprehensiveness of the sample. This approach ensures a balanced representation of students across diverse disciplines, encompassing a total of 14 distinct majors across all universities. By capturing a broader range of perspectives and experiences among the participants, this method increases the diversity of academic fields.
represented. The basic information of the selected universities, population, and sample size can be found in table 2.

### Table 2

<table>
<thead>
<tr>
<th>University Name</th>
<th>Location</th>
<th>Population of students</th>
<th>Sample Size</th>
<th>Information Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Sichuan Normal</td>
<td>Chengdu, Sichuan</td>
<td>37,000</td>
<td>154</td>
<td><a href="http://www.sicnu.edu.cn">www.sicnu.edu.cn</a></td>
</tr>
<tr>
<td>2 China West Normal</td>
<td>Nanchong, Sichuan</td>
<td>30,000</td>
<td>125</td>
<td><a href="http://www.sicnu.edu.cn">www.sicnu.edu.cn</a></td>
</tr>
<tr>
<td>3 Mianyang Teachers'</td>
<td>Mianyang, Sichuan</td>
<td>19,000</td>
<td>79</td>
<td><a href="http://www.mtc.edu.cn">www.mtc.edu.cn</a></td>
</tr>
<tr>
<td>4 Neijiang Normal</td>
<td>Neijiang, Sichuan</td>
<td>17,000</td>
<td>71</td>
<td><a href="http://www.njtc.edu.cn">www.njtc.edu.cn</a></td>
</tr>
<tr>
<td>5 Aba Teachers'</td>
<td>Aba, Sichuan</td>
<td>10,890</td>
<td>45</td>
<td><a href="http://www.abtu.edu.cn">www.abtu.edu.cn</a></td>
</tr>
<tr>
<td>6 Leshan Normal</td>
<td>Leshan, Sichuan</td>
<td>15,000</td>
<td>63</td>
<td><a href="http://www.lsnu.edu.cn">www.lsnu.edu.cn</a></td>
</tr>
<tr>
<td>7 Chengdu Normal</td>
<td>Chengdu, Sichuan</td>
<td>15,000</td>
<td>63</td>
<td><a href="http://www.cdnu.edu.cn">www.cdnu.edu.cn</a></td>
</tr>
<tr>
<td>Total:</td>
<td></td>
<td>143,890</td>
<td>600</td>
<td></td>
</tr>
</tbody>
</table>

#### 3.2 DATA COLLECTION INSTRUMENT (QUESTIONNAIRE)

The questionnaire utilized in this study was meticulously developed by drawing from prior research, comprising 6 sections and a total of 80 items. Each question item was assessed using Likert's 5-point scale measure, enabling a thorough evaluation of the variables under scrutiny.

To assess human capital, we integrated measurements from Wang, F. (2018)'s doctoral thesis and Selvadurai, S., Choy, E. A., & Maros, M. (2012)'s research, ensuring a robust and comprehensive evaluation of this pivotal variable. Psychological capital was evaluated using the Positive Psycap Questionnaire (PPQ) developed by Zhang, K. et al. (2010), a widely recognized and validated tool enabling a thorough examination of individuals' psychological resources and strengths. Career identity was appraised by integrating measurements from Wei, (2013) and Hao, (2014), ensuring a comprehensive and nuanced understanding of individuals' career identity. Lastly, the measurement of the labor market variable was synthesized based on research scales developed by Wang, (2018) and Min, (2021), allowing for a comprehensive portrayal of the multifaceted nature of the labor market and its impact on individuals' outcomes. By utilizing these established and validated measurement tools, we can
confidently assess the various variables under investigation in this study, ensuring the reliability and validity of our findings. This meticulous approach underscores the rigor and scientific validity of our research.

3.3 DATA PROCESSING

The quantitative data analysis in this study was conducted using SPSS version 26 and smart PLS 4 software, both of which are widely recognized analytical tools. The use of these tools enabled the application of structural equation modeling techniques to test the proposed model. This rigorous approach allowed for a comprehensive evaluation of the relationships between the variables under investigation, enhancing the validity and reliability of our findings. The structure equation model of the study is shown in Figure 3.
4 RESULTS

4.1 MEASUREMENT MODEL ASSESSMENT

The assessment of the measurement model began with an evaluation of its reliability and validity. The results demonstrated that all items exhibited Cronbach’s alpha coefficients ranging from 0.894 to 0.956, surpassing the proposed value of 0.7 (Kannada & Tan, 2005). Moreover, the construct reliability (CR) values for all items ranged from 0.898 to 0.957,
Factors Influencing the Employability of Teachers’ University Students: An Empirical Study from Sichuan Province, China

exceeding the suggested threshold of 0.7 (Werts, Linn, & Jöreskog, 1974), indicating that the measurement model meets the required standards for reliability and construct validity, as illustrated in Table 3. Additionally, all Average Variance Extracted (AVE) values surpassed the proposed value of 0.50 (Hair et al., 2010), ranging from 0.669 to 0.882. Therefore, there are no concerns with the AVE of all constructs, as their values exceeded 0.50, as indicated in Table 3. These findings offer compelling evidence of the reliability and validity of the measurement model, reinforcing the robustness of our study's methodology and the credibility of our results.

Table 3
Construct reliability and validity

<table>
<thead>
<tr>
<th>Construct</th>
<th>Cronbach's alpha</th>
<th>Composite reliability (ρ₀₋₅)</th>
<th>Composite reliability (ρ₀₋₆)</th>
<th>Average variance extracted (AVE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>The employability of teachers’ university students</td>
<td>0.907</td>
<td>0.926</td>
<td>0.908</td>
<td>0.729</td>
</tr>
<tr>
<td>Labor market</td>
<td>0.894</td>
<td>0.914</td>
<td>0.898</td>
<td>0.705</td>
</tr>
<tr>
<td>Human capital</td>
<td>0.896</td>
<td>0.916</td>
<td>0.900</td>
<td>0.699</td>
</tr>
<tr>
<td>Psychological capital</td>
<td>0.956</td>
<td>0.960</td>
<td>0.957</td>
<td>0.669</td>
</tr>
<tr>
<td>Career identity</td>
<td>0.956</td>
<td>0.960</td>
<td>0.957</td>
<td>0.882</td>
</tr>
</tbody>
</table>

In this study, the Fornell–Larcker method was utilized to evaluate the discriminant validity of the measurement model. As presented in Table 4, the square root of the Average Variance Extracted (AVE) for each construct, denoted by the bolded values on the diagonals, exceeded the correlations between constructs. This comparison indicates that the constructs are more strongly related to their respective indicators than to other constructs within the model, aligning with the criteria established by Fornell & Larcker (1981) and Chin (1998). These results unequivocally demonstrate the attainment of good discriminant validity, as the established criteria for discriminant validity have been successfully satisfied. This rigorous analysis provides strong support for the robustness and validity of the measurement model, bolstering the overall integrity of this study's findings.
Table 4

Discriminant validity (Fornell–Larcker criterion)

<table>
<thead>
<tr>
<th>Construct</th>
<th>Employability of teachers’ university students</th>
<th>Labor market</th>
<th>Human capital</th>
<th>Psychological capital</th>
<th>Career identity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employability of teachers’</td>
<td>0.854</td>
<td>0.705</td>
<td>0.699</td>
<td>0.669</td>
<td>0.882</td>
</tr>
<tr>
<td>university students</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Labor market</td>
<td>0.705</td>
<td>0.839</td>
<td>0.699</td>
<td>0.669</td>
<td>0.882</td>
</tr>
<tr>
<td>Human capital</td>
<td>0.699</td>
<td>0.699</td>
<td>0.836</td>
<td>0.669</td>
<td>0.882</td>
</tr>
<tr>
<td>Psychological capital</td>
<td>0.669</td>
<td>0.669</td>
<td>0.669</td>
<td>0.818</td>
<td>0.882</td>
</tr>
<tr>
<td>Career identity</td>
<td>0.882</td>
<td>0.882</td>
<td>0.882</td>
<td>0.882</td>
<td>0.939</td>
</tr>
</tbody>
</table>

4.2 THE TESTING OF HYPOTHESES

The hypotheses in this study were evaluated using path coefficients, with T-values and P-values serving as primary indicators of significance. A smaller P-value (< 0.05) is conventionally interpreted as support for the hypothesis. Furthermore, comparisons of means and standard deviations were utilized to assess differences between groups. It is important to emphasize that specific critical values may vary by field, and the interpretation of results should be informed by domain knowledge and theory (Hoyle, 1995). The results of the hypotheses testing are presented in Table 5. This approach aligns with established statistical and theoretical considerations, ensuring the robustness and validity of the study's findings.
Table 5

The hypotheses testing

| Hypothesis                                      | path coefficients(β) | (STDEV) | T statistics (|O/STDEV|) | P values | Result    |
|-------------------------------------------------|-----------------------|---------|----------------|----------|-----------|
| human capital -> employability                  | 0.244                 | 0.056   | 4.372          | 0.000    | support   |
| psychological capital -> employability          | 0.255                 | 0.050   | 5.112          | 0.000    | support   |
| Career identity -> employability                | 0.214                 | 0.056   | 3.807          | 0.000    | support   |
| labor market x human capital -> employability   | 0.169                 | 0.061   | 2.744          | 0.006    | support   |
| labor market x psychological capital x employability | 0.033                 | 0.088   | 0.369          | 0.712    | no support |
| labor market x career identity -> employability | 0.174                 | 0.072   | 2.400          | 0.016    | support   |

The analysis of the data presented in Table 5 yields clear and compelling conclusions regarding the hypotheses under investigation.

Hypotheses 1: human capital -> employability: The path coefficient of 0.244, combined with a small standard deviation (STDEV) of 0.056, resulted in a T-statistic of 4.372 and a P-value of 0.000. This provides robust support for the hypothesis that human capital positively influences the employability of teachers’ university students.

Hypothesis 2: psychological capital -> employability: With a path coefficient of 0.255 and a small standard deviation (STDEV) of 0.050, the resulting T-statistic of 5.112 and a P-value of 0.000 strongly support the hypothesis. These findings underscore the substantial impact of psychological capital on employability in this context.

Hypothesis 3: Career identity -> employability. With a path coefficient of 0.214 and a small standard deviation (STDEV) of 0.056, the resulting T-statistic of 3.807 and a P-value of 0.000 indicate strong support for the relationship between career identity and employability. These findings underscore the substantial impact of career identity on individuals’ employability in this context.

Hypothesis 4: labor market x human capital -> employability. With a path coefficient of 0.169 and a moderate standard deviation (STDEV) of 0.061, the resulting T-statistic of 2.744 and a P-value of 0.006 indicate strong statistical support for the relationship. These results emphasize the substantial impact of the interaction between the labor market and human capital on individuals’ employability in this context.
Hypothesis 5: labor market x psychological capital -> employability. With a path coefficient of 0.033 and a relatively larger standard deviation (STDEV) of 0.088, the resulting T-statistic of 0.369 and a P-value of 0.712 suggest a lack of statistical support for the hypothesis. These results imply that the interaction between the labor market and psychological capital does not have a substantial impact on employability in this context.

Hypothesis 6: labor market x career identity -> employability. With a path coefficient of 0.174 and a moderate standard deviation (STDEV) of 0.072, the resulting T-statistic of 2.400 and a P-value of 0.016 indicate strong statistical support for the relationship. The analysis provides robust evidence supporting the hypothesis that the interaction between the labor market and career identity significantly influences employability.

The analysis of the provided data supports the hypotheses that human capital, psychological capital, and career identity have a significant impact on the employability of teachers’ university students. The results indicate strong support for the relationships between these factors and employability, as evidenced by the path coefficients, small standard deviations, and high T-statistics with low P-values. On the other hand, the interaction between the labor market and psychological capital was found to lack a significant impact on employability, while the interaction between the labor market and career identity, as well as the labor market and human capital, was shown to have a significant influence. These findings underscore the importance of human capital, psychological capital, and career identity in shaping employability, providing valuable insights for individuals and organizations seeking to enhance workforce readiness and effectiveness.

In Figure 4, the importance-performance map, it is clear that human capital, psychological capital, and career identity are important factors with strong performance, indicating their significant impact on employability. Conversely, the interactions between the labor market and these factors yield less significant results, indicating a limited impact on employability. This suggests the need for further exploration to gain a deeper understanding of these dynamics.
5 DISCUSSION

Based on the quantitative research data, it is evident that human capital, encompassing students' professional skills, practical skills, and generic skills, along with psychological capital, comprising self-efficacy, optimism, hope, and resilience, play a pivotal role in shaping the employability of teachers' university students. And career identity also can enhance the employability of teachers’ university students. However, in a highly competitive job market, students often have limited agency in choosing their preferred job and are frequently chosen by jobs rather than being able to select their desired career path. The pressure of finding employment and intense competition leads many college students to prioritize immediate job opportunities over considering their career identity. Their primary focus becomes securing financial stability and job prospects, making them willing to accept any job offering stability and income, even if it is not in their preferred field of interest. In this context, the influence of career identity may be relatively minimal. These findings underscore the critical importance of human capital and psychological capital in preparing students for the labor market, while also shedding light on the challenges students face in aligning their career aspirations with the realities of the job market.

The lack of support for Hypothesis 5, which posits that the relationship between psychological capital and the employability of teachers' university students is moderated by the labor market, warrants further exploration.
On July 5, 2023, the Chinese Ministry of Education issued the Statistical Bulletin on the Development of National Education in 2022. According to the report, the number of preschoolers and primary school students in China both decreased in 2022. Specifically, the number of preschoolers in China was 46.275 million, while the number of primary school students was 107 million. This represented a decrease of approximately 1.77 million and 1 million, respectively, from the previous year. Notably, this marks the second consecutive year of decline in the number of preschoolers and the first decline in the number of primary school students since 2014. Furthermore, based on national birth data from 2017 to 2022, the number of births has decreased by more than 40% over the past six years, indicating that the number of primary school enrollments will continue to decline from 2023 to 2028 (moe.gov.cn).

The current dynamics of the job market for educators are characterized by a confluence of factors, including a surge in the number of graduate students pursuing teaching careers and a decline in primary school student enrollment. This has led to heightened competition among teachers’ university students for the limited available teaching positions. In such a fiercely competitive labor market, the possession of specialized teaching skills and experience in specific educational settings becomes imperative for securing employment. Despite demonstrating high levels of psychological capital, such as self-efficacy and resilience, teachers’ university students may face challenges in securing employment if their skill set does not align with the specific demands of the profession. These findings underscore the need to address the evolving needs and requirements of the teaching profession to ensure successful entry and sustainability in the job market for educators.

The substantial decrease in birth rates over the past six years raises concerns about an impending decline in primary school enrollments. This anticipated reduction in student numbers is likely to create a more challenging job market for teachers, with fewer job opportunities available. Consequently, this scenario may have a detrimental impact on the employability of teachers’ university students. Even if these students possess psychological capital, the diminishing demand for educators may limit their prospects of finding employment. Therefore, it is essential to consider labor market dynamics when evaluating the employability of teachers’ university students. The observed interactions between the labor market and psychological capital, career identity, and human capital may not exhibit significant performance, which can be attributed to the intense competition and high pressure within the labor market for teachers’ university students pursuing careers.
In recent years, psychological capital has garnered significant attention due to its potential impact on individuals' employability and success in the job market. As defined by Avolio and Luthans (2006), psychological capital encompasses positive psychological attributes, including self-efficacy, hope, optimism, resilience, and emotional intelligence, that individuals exhibit during their growth and development. Research has demonstrated that psychological capital can be cultivated through interventions such as cognitive training and social support networks. However, it also exhibits stability in its trait-like characteristics, influenced by internal factors such as personality traits and life experiences. This suggests that while some individuals may possess the ability to adapt their psychological capital to align with labor market demands, others may encounter difficulties in doing so.

Therefore, it is essential to recognize that the existence of job opportunities does not guarantee success for all individuals. Some students may possess inherent psychological characteristics or experiences that are not easily adaptable to the current demands of the labor market. Consequently, it is crucial to develop strategies that consider individual differences in psychological capital and provide support to enhance it where possible. By doing so, we can create a more inclusive and supportive environment that maximizes individuals' potential for success in the job market. This approach acknowledges the complexity of the relationship between psychological capital and employability, highlighting the need for tailored interventions that can facilitate individuals' adaptation to the evolving demands of the labor market.

6 CONCLUSION

The study's findings underscore the critical importance of human capital, psychological capital, and career identity in shaping the employability of teachers' university students. Higher levels of these factors are positively associated with improved employability, indicating their significant impact on students' career prospects. Moreover, the study proposes that the influence of these factors on employability is likely to be moderated by the conditions of the labor market, emphasizing the dynamic interplay between individual attributes and external market forces.

A notable trend highlighted in the study is the prioritization of immediate job opportunities over career identity among college students in the competitive labor market. This emphasis on financial stability and job prospects may result in a mismatch between career aspirations and actual career choices, potentially affecting employability. Additionally, with the
projected increase in graduates and a decrease in the primary school student population, teachers' university students may face challenges that could impact their psychological capital, further influencing their employability and career prospects.

Recognizing the potential impact of these changes, it is imperative for teachers' universities to prioritize helping students improve their human and psychological capital. Strategies to support students in building and maintaining their psychological capital are crucial, including interventions to enhance resilience, optimism, and emotional intelligence, as well as programs that facilitate career exploration and development. Addressing these challenges proactively will better prepare teachers' university students to navigate the evolving labor market and achieve success in their careers.

While this study focuses on human capital, psychological capital, career identity, and the labor market in Sichuan Province, it is important to consider a broader range of variables and geographical areas for a comprehensive understanding of employability. The findings underscore the need for further research encompassing diverse variables and locations to provide a more complete picture of the complexities influencing the employability of teachers' university students. This approach will contribute to a more equitable and effective labor market, benefiting both individuals and the broader economy.

REFERENCES


Factors Influencing the Employability of Teachers’ University Students: An Empirical Study from Sichuan Province, China


Factors Influencing the Employability of Teachers’ University Students: An Empirical Study from Sichuan Province, China


