THE IMPACT OF PSYCHOLOGICAL CAPITAL AND HUMAN CAPITAL ON COLLEGE STUDENTS' EMPLOYABILITY UNDER MARKET DEMAND THEORY

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Abstract

This paper investigates the complexities surrounding employability among college students in the context of China's rapidly evolving higher education and labor market landscapes. Grounded in market demand theory and aligned with the emphasis on "Employment" articulated in the 20th National Congress Report of the Communist Party of China, this study critically examines the multifaceted dimensions of employability, particularly focusing on human capital and psychological capital. Utilizing a quantitative methodology, this study employed structured questionnaires to validate the proposed model through Smart-PLS analysis. The findings reveal crucial insights into the significant factors influencing the employability of students from teachers' universities, elucidating the underlying reasons for their impact. The results highlight the essential roles of both human and psychological capital, while also indicating that the relationship between human capital and employability is likely moderated by labor market conditions. This underscores the dynamic interplay between individual attributes and external market forces, thereby providing a comprehensive understanding of the employability dynamics faced by graduates in this field.

Keywords: Employability, Human capital, Labor market, Psychological capital

Introduction

The 20th National Congress Report of the Communist Party of China emphasized that "Employment is the most fundamental aspect of people's livelihood," especially amid slowed economic growth, which has heightened employment pressure. While China's overall employment situation is largely positive, significant challenges remain, notably for university graduates, whose job prospects are critical for national economic and social development and a focal point for research. Higher education plays a vital role in sustainable development by providing diverse opportunities and cultural foundations. In the past five years, the number of college graduates in China has shown a continuous increase. Specifically, the number of college graduates in 2020 was 8.74 million, and this figure rose to 9.09 million in 2021. By 2022, the number of college graduates surpassed 10 million, reaching 10.76 million. In the following year, 2023, the number of graduates continued to climb, reaching 11.58 million. It is projected that the number of college graduates in 2024 will further increase to approximately 11.79 million. This growth trend is primarily attributed to the increase in birth rates and the rise in enrollment rates at the high school level. However, as the number of graduates continues to grow, it has also led to increasingly severe employment pressures. Therefore, for current college students, it is especially important to continually enhance their overall quality and employability to better adapt to the competitive job market.

Effectively promoting employment for college graduates has become increasingly crucial given current challenges, making employability a key research focus. Yorke (2006) defines employability as "a set of achievements – skills, understandings, and personal attributes – that makes graduates more likely to gain employment and succeed in their chosen occupations," while Bennett (2020) describes it as the ability "to find, create and sustain meaningful work across the career lifespan." Scholars argue that employability encompasses career identity, personal attributes, social capital, and human capital (Clarke, 2018), and it refers to the ability to obtain and perform a job effectively, distinguishing it from mere employment, which is simply holding a job (Bennett, 2018; Yorke, 2006). Graduates play a vital role in the labor market and national development (Tomlinson, 2016), highlighting the importance of understanding and developing the competencies needed for employability through collaboration among government, universities, employers, and students (Su & Zhang, 2015). Enhancing the employability of university graduates is strategically important for China, as they represent a crucial human resource impacting national competitiveness. Employability acts as a bridge between higher education and the labor market, where employers represent the demand side and universities the supply side, with employer demand influenced by business strategies and market conditions, illustrating the interrelationship between supply and demand actors in the labor market (Clarke, 2018).

Literature review

In the 1990s, "employability" became a key research focus in analyzing labor market policies in Europe and America, particularly regarding university students' employment issues. As many developed and emerging countries approach universal higher education, the current curriculum design and teaching methods in higher education often fail to adapt proactively to rapidly changing job markets. This has created a significant gap between the employability of highly educated graduates and employer demands, impacting full and high-quality employment opportunities. Consequently, the employability of university graduates has garnered considerable attention.Research on employability primarily defines the concept from three perspectives: government and education, business and organizations, and individuals. Scholars emphasize different aspects due to disciplinary and research perspective differences. The employability structure for university students is complex, encompassing multiple dimensions and factors. It is labor market-oriented and influenced by individual traits, personal environments, coping strategies, and external structural factors, all of which interact and evolve together to shape students' employability.

The human capital theory(HCT), introduced in the 20th century, stands as a groundbreaking framework that elucidates the intricate relationship between education and the economy. University graduates' job market value heavily relies on how companies and the job market assess their accumulated human capital from their academic years. Human capital in higher education, based on human capital theory, consists of individual abilities developed through educational investments. Employability, an essential part of students' human capital, is nurtured through education. The traditional notion of "higher education, higher abilities" is challenged as practical work capabilities are found to be more influential in job searches than solely educational qualifications and majors (Su& Meng, 2012).

Human capital significantly shapes graduates' job prospects and starting salaries, with personal work capabilities gaining prominence in the job search process. Thus, investing in human capital, supported by governments, universities, and students, aligns to enhance employability. While the specific objectives may vary, cultivating and refining employability skills and overall competence contribute to continuous human capital accumulation, elevating individual "quality." Therefore, human capital theory forms the primary theoretical foundation for constructing a structural model of university students' employability.

American psychologist Fred Luthans (2006) introduced the concept of psychological capital, which posits that positive psychological traits can enhance employees' engagement and optimal performance at work. This capital boosts self-efficacy, fosters a hopeful outlook for the future, and cultivates an optimistic attitude toward overcoming obstacles. As part of positive psychology theory, psychological capital includes valuable internal resources such as self-esteem, mental and physical health, and tranquility, alongside external factors like social support and reputation, all of which help individuals achieve personal goals. Research has increasingly focused on the connections between psychological capital and various factors, including employment and entrepreneurship, particularly among college students. Studies indicate significant positive correlations between students' psychological capital, vocational decision-making self-efficacy, and career planning, with psychological capital positively predicting career planning (Wang, 2019). Additionally, it significantly impacts employment performance and job-seeking behaviors across its various dimensions. Among college students, psychological capital reflects a positive and growth-oriented state crucial for securing employment opportunities, positioning it as a key determinant of competitive advantage in the job market. Thus, this study incorporates psychological capital as one of the independent variables in examining employability.

Hypothesis

Based on the literature review, this study proposes the following research hypotheses to examine the relationships among human capital, psychological capital, and college students' employability, with the labor market serving as a moderating variable:

H1: Human capital positively influences psychological capital.

H2: Human capital positively affects the employability of college students.

H3: Psychological capital positively affects the employability of college students.

H4: The relationship between human capital and the employability of college students is moderated by the labor market.

Methodology

The methodology of this study is designed to rigorously examine the relationships among human capital, psychological capital, and college students' employability across seven universities in Sichuan, China. A quantitative research approach was employed, distributing a total of 400 questionnaires via the Questionnaire Star platform on WeChat. The sample size was determined using the Taro Yamane formula, ensuring a statistically valid and representative sample of the target population.

The questionnaires were meticulously developed based on established measures from prior research to enhance their validity and reliability. For assessing human capital,

measurements were integrated from Wang (2018) in his doctoral thesis and from Selvadurai, Choy, and Maros (2012), specifically focusing on relevant generic skills for graduates. Psychological capital was evaluated using the Positive Psycap Questionnaire (PPQ) developed by Zhang et al. (2010), which captures four key dimensions: self-efficacy, optimism, hope, and resilience. To gauge employability, Bao's (2008) questionnaire was utilized, which assesses graduates' employment proficiency through two critical dimensions: current employment status and employment satisfaction. Furthermore, the labor market was included as a moderating variable, utilizing a synthesis of research scales from Wang (2018), Yuan (2014), and Liu (2021) to adequately reflect its impact on employability outcomes.

To test the measurement model, the study employed composite reliability (CR) to assess internal consistency and average variance extracted (AVE) for convergent validity. Initially, the measurement model was evaluated for convergent validity through factor loadings, with internal consistency corroborated by CR. Following this, the internal structural model was assessed using Partial Least Squares (PLS) analysis and bootstrapping techniques to validate the proposed hypotheses. The analysis was conducted using Smart-PLS 3, a widely recognized software in research for its robustness in statistical modeling. A bootstrapping technique was performed with 3,000 iterations to determine the statistical significance of the path coefficients (Chin, 1998). This comprehensive methodological framework not only supports the study's hypotheses but also contributes to the growing body of research in the field of employability and human resource development.

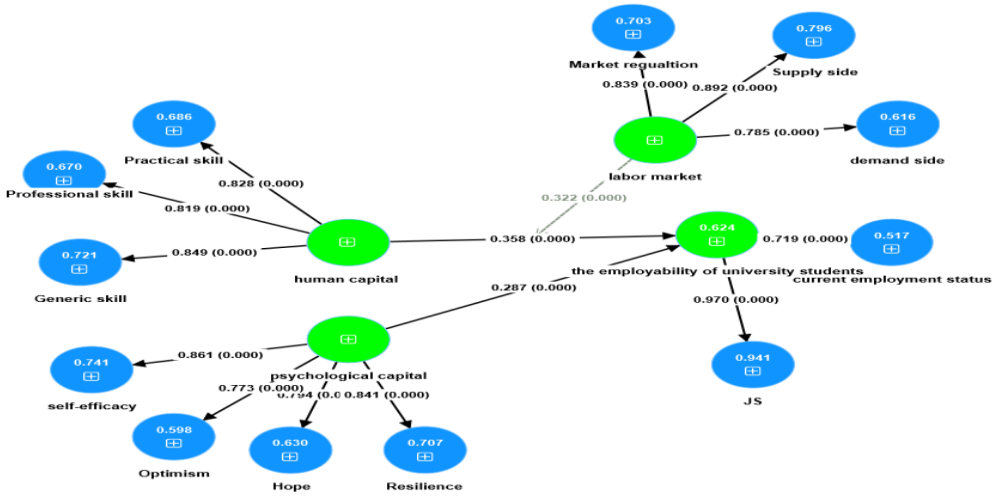

Figure 1: The structure equation model of the study

Results and findings

1. Measurement model assessment

The evaluation of the measurement model focused on its reliability and validity. All items demonstrated Cronbach's alpha coefficients ranging from 0.894 to 0.956, well above the recommended threshold of 0.7 (Kannada & Tan, 2005). Construct reliability (CR) values also exceeded the minimum standard, ranging from 0.898 to 0.957 (Werts, Linn, & Jöreskog, 1974), confirming the model's reliability and construct validity, as shown in Table 1.

Moreover, all Average Variance Extracted (AVE) values were above the 0.50 cutoff (Hair et al., 2010), ranging from 0.669 to 0.882, indicating no concerns with the constructs' AVE. These findings collectively reinforce the reliability and validity of the measurement model, bolstering the rigor of our methodology and the credibility of our results.

Table 1: Construct reliability and validity

	Cronbach's alpha	Composite reliability (rho_c)	Composite reliability (rho_a)	Average variance extracted (AVE)
The employability of university students	0.907	0.926	0.908	0.729
Labor market	0.894	0.914	0.898	0.705
Human capital	0.896	0.916	0.900	0.699
Psychological capital	0.956	0.960	0.957	0.669

In this study, the Fornell–Larcker method was employed to assess the discriminant validity of the measurement model. As shown in Table 4, the square root of the Average Variance Extracted (AVE) for each construct, highlighted by the bold values along the diagonals, surpassed the correlations among constructs. This suggests that each construct has a stronger relationship with its indicators than with other constructs in the model, in accordance with the criteria set forth by Fornell & Larcker (1981) and Chin (1998). These findings clearly confirm the presence of strong discriminant validity, indicating that the criteria have been successfully met. This thorough analysis underscores the robustness and validity of the measurement model, enhancing the overall reliability of the study's conclusions.

Table 2: Discriminant validity (Fornell–Larcker criterion)

Construct	Employability of university students	Labor market	Human capital	Psychological capital
Employability of university students	0.854	0.705	0.699	0.669
Labor market	0.705	0.839	0.699	0.669
Human capital	0.699	0.699	0.836	0.669
Psychological capital	0.669	0.669	0.669	0.818

2. The testing of hypotheses

The hypotheses in this study were assessed through the analysis of path coefficients, relying on T-values and P-values as key indicators of significance. A P-value of less than 0.05

is conventionally regarded as evidence in support of the hypothesis. Additionally, mean and standard deviation comparisons were employed to evaluate differences between groups. It is essential to note that critical values can vary across disciplines; thus, the interpretation of results should be informed by relevant domain knowledge and theoretical frameworks (Hoyle, 1995). The outcomes of the hypothesis testing are summarized in Table 5. This methodology is consistent with established statistical and theoretical principles, reinforcing the robustness and validity of the study's findings.

Table 3: the hypotheses testing

Hypotheses	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values	result
human capital -> psychological capital	0.618	0.62	0.04	15.575	0	support
human capital -> the employability of university students	0.361	0.362	0.065	5.522	0	support
psychological capital -> the employability of university students	0.284	0.29	0.059	4.772	0	support
labor market x human capital -> the employability of university students	0.321	0.314	0.06	5.392	0	support

Hypothesis 1: Human Capital → Psychological Capital

The strong positive coefficient of 0.618 indicates that increased human capital (education, skills, experience) significantly enhances psychological capital (traits such as resilience and confidence). A t-statistic of 15.575 and a p-value of 0 confirm this relationship's statistical significance. This suggests that improving educational outcomes and professional development can positively impact students' psychological well-being, fostering their personal and professional growth.

Hypothesis 2: Human Capital → Employability of University Students

With a coefficient of 0.361, this hypothesis suggests that higher human capital translates to increased employability for university students. A t-statistic of 5.522 and a p-value of 0 indicate that these findings are statistically significant, highlighting the importance of educational programs and training initiatives in enhancing graduates' job readiness.

Hypothesis 3: Psychological Capital → Employability of University Students

The positive coefficient of 0.284 shows that psychological capital (self-efficacy, resilience, optimism) significantly enhances students' employability. The t-statistic of 4.772 and a p-value of 0 support the conclusion that individuals with higher psychological capital are

more likely to succeed in securing jobs, indicating the need to integrate psychological skill development into curricula to better prepare students for the workforce.

Hypothesis 4: Labor Market x Human Capital → Employability of University Students

This hypothesis reveals a coefficient of 0.321, suggesting that favorable labor market conditions enhance the impact of human capital on employability. A t-statistic of 5.392 and a p-value of 0 confirm the relationship's statistical significance. This insight emphasizes the importance of considering labor market dynamics in educational and policy initiatives aimed at improving employability, advocating for a comprehensive approach that combines individual capability development with awareness of market trends.

Conclusion and discussion

The analysis reveals significant positive effects of human capital and psychological capital on university students' employability, influenced by labor market conditions. Each hypothesis showed strong statistical support, emphasizing the need for investment in educational practices.

A notable relationship exists between human capital and psychological capital, with a coefficient of 0.618, indicating that enhancing qualifications and skills also boosts psychological resilience and confidence. This interplay is vital for developing comprehensive educational programs. The direct impact of human capital on employability (coefficient of 0.361) underscores the importance of universities prioritizing skill development programs to prepare students for the job market. Such investments are essential for improving graduates' job readiness.Additionally, the positive association between psychological capital and employability (coefficient of 0.284) highlights the need to support students' mental well-being, suggesting the incorporation of psychological skill-building initiatives in university offerings. Finally, the interaction between labor market conditions and human capital (coefficient of 0.321) shows that external factors play a significant role in employability. A strong labor market can enhance the benefits of human capital, indicating the importance of teaching students how to navigate market fluctuations.

In summary, these findings advocate for a comprehensive approach to enhancing employability that integrates human and psychological capital development with an awareness of labor market conditions, ultimately better preparing students for successful career transitions.

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