

The Exploring Employment Competencies among Private Undergraduate Students: A Factor Analysis in Sichuan Province

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Abstract

This study examines employment abilities among private undergraduate students in Sichuan Province. This study aims to evaluate the present condition of students' job abilities, identify significant influencing variables, and gather insights from students, educators, and employers in the business sector. At 18 private universities, questionnaires were customized to focus on four variables: professional self-development, interpersonal communication ability, practice-oriented professional competence, and integration of professional knowledge as primary research elements. The data collection included online questionnaires and on-campus interviews, followed by comprehensive data analysis to thoroughly assess student performance in various job competency areas.

Research findings indicate that private undergraduate students in Sichuan Province often exhibit certain traits related to occupational abilities. Factor analysis reveals many significant components, including "Core Professional Skill Cultivation" and "Comprehensive Quality Enhancement," which are essential in fostering students' job skills. This enables private colleges to get critical insights for refining talent development methods to enhance students' employability and realize their full potential as job candidates.

Keywords: Exploring Employment Competency; Private Undergraduate Students; Factor Analysis; Sichuan Province

Introduction

Undergraduate students attending private universities have increasingly garnered increased scrutiny due to today's highly competitive job market and their employment competencies have garnered increasing consideration. Sichuan Province has witnessed rapid expansion of private higher education institutions, making understanding these students' capabilities and qualities of paramount importance both to educational institutions and employers alike. Private undergraduate education differs significantly from public universities by often having its own specific educational philosophy and resource allocation models that greatly shape students' learning experiences and professional capabilities (Li, 2018). Recent educational and employment research has seen considerable focus on employment competencies. Professional Self-Development is seen as essential for students' long-term career growth. Wang (2020) found that students with an acute sense of professional self-development are more proactive in seeking learning opportunities, quickly adapting to ever-evolving workplace requirements, and can pursue them effectively. Interpersonal communication proficiency is also vitally important, as effective dialogue forms the cornerstone of teamwork and creating positive relationships among colleagues and clients. Zhang's research (2022) indicates that graduates with superior interpersonal skills have a greater chance of finding

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employment and experiencing career advancement within their workplace. Practice-Oriented Professional Competence also plays a pivotal role in shaping the practical working environment, as it determines whether students can easily transform theoretical knowledge into work accomplishments. Liu's investigation (2021) indicates that employers attach great significance to graduates with strong practical operation abilities, and those lacking such capabilities often face difficulty when searching for employment. Professional Knowledge Integration measures students' abilities to utilize professional knowledge from multiple disciplines effectively for solving complex problems in real work settings. But there remain issues and challenges related to cultivating employment competencies among private undergraduate students. Due to limited resources and insufficient cooperation with enterprises, some private universities struggle to offer students enough practical training opportunities, creating an imbalance between theoretical knowledge acquired during learning and actual implementation in practice. Under traditional teaching models, an excessive focus may be placed on imparting knowledge without sufficient attention being paid to cultivating students' overall qualities and thus hampering the enhancement of their employment competencies. Therefore, an in-depth factor analysis of private undergraduate students' employment competencies must be conducted in order to uncover key influencing factors and make targeted suggestions for improvement.

The research problems:

What is the performance of private undergraduate students in Sichuan Province across four key employ ability variables?

What are the main factors affecting the employ ability of private undergraduate students?

To what extent do various factors influence the employment outcomes of private undergraduate students?

This research investigates 18 private universities in Sichuan Province with an aim of comprehensively exploring the employment competencies of undergraduate students from these 18 private universities, with four variables at its core such as Professional Self-Development, Interpersonal Communication Competence, Practice-Oriented Professional Competence and Professional Knowledge Integration as core considerations. Through this methodology this study intends to provide valuable insights and strategies that enable private universities to optimize talent cultivation models and enhance students' employment competitiveness.

Research Objectives

1. To Assess the current state and levels of private undergraduate students' employment competency levels in Sichuan Province regarding four key variables.

2. To Conduct an exploratory factor analysis on the employment competencies of private undergraduate students, to identify key influencing factors and dimensions.

3. To Establish a predictive model to examine the influence of various factors on employment outcomes for private undergraduate students, providing a basis for formulating targeted educational improvement measures.

Literature Review

1. Professional Self-Development

Professional self-development plays an essential role in developing employment competencies among undergraduate students enrolled in private higher education institutions. Research indicates that nurturing professional growth enhances both individual employability and student development in general, as it provides them with essential skills needed for modern workplace environments. Benera (2020) notes the effectiveness of professional development programs tailored to employment education and technologies in higher education in increasing students' job market readiness. Furthermore, Belonovskaya et al. (2020) underline the significance of pedagogical support in vocational education programs that helps develop practical skills and career-related competencies through structured guidance and mentorship programs. Palamarchuk et al. (2020) highlight the role of innovation in professional self-development, suggesting that integrating innovative practices into education fosters adaptability and creativity--key characteristics of employability. Vashetina et al. (2018) offer similar recommendations. (2022) also recognizes critical elements and challenges related to professional development, emphasizing the necessity of continuous learning and developing transferable skills that meet changing market demands. These studies collectively illustrate the significance of professional self-development for shaping employment competencies, especially among private undergraduate students in regions like Sichuan Province where aligning education with market needs is fundamental for career success.

2. Interpersonal Communication Competence

Interpersonal communication proficiency is a cornerstone of employability among private undergraduate students from regions like Sichuan Province. Studies continue to emphasize the vital role communication skills play in shaping graduates' employment outcomes and professional success. Succi and Canovi (2020) point out that soft skills, including interpersonal communication, are highly valued by employers and are often considered equally essential as technical expertise. Their study comparing students' and employers' perceptions reveals a gap between what students believe they possess in terms of communication skills, and employers' expectations, underscoring the necessity for targeted educational interventions to bridge this divide. Abelha et al. (2020) conducted a systematic literature review and identified interpersonal communication competence as a core employability skill that higher education institutions must prioritize for graduate employability. Their findings demonstrated how cultivating communication skills through structured programs could significantly boost graduates' readiness to enter dynamic and competitive labor markets after graduation. Gill (2022) adds support to this view by asserting that communication education plays a pivotal role in cultivating employability skills. His systematic review underlines its efficacy by showing its benefits for improving students' interpersonal competence and equipping them with adaptability required for complex workplace interactions. Chan et al. (2023) offer additional insights by reviewing professional competencies necessary for workplace success. Their analysis highlights interpersonal communication as a foundational skill, essential for collaboration, teamwork and leadership - qualities essential in contemporary professional settings. Their findings support the notion that communication competence is not simply desirable but a significant indicator of employability.

Collectively, these studies highlight the significance of interpersonal communication competence for increasing employability among private undergraduate students in Sichuan Province. With an ever-evolving labor market and ever-higher expectations from employers and employees alike, equipping students with strong communication skills is imperative to their professional success and meeting employer requirements.

3. Practice-Oriented Professional Competence

Practice-oriented professional competence plays an essential part in increasing employability among private undergraduate students from regions like Sichuan Province. Studies reveal the significance of developing such competencies to bridge the gap between academic training and workplace needs. Succi and Canovi (2020) highlight the significance of soft skills, including practice-oriented professional competence, for graduate employability. Their study uncovers an alarming mismatch between self-perceived capabilities of students and employers' expectations - emphasizing the need for higher education institutions to focus on practical skill development to meet labor market demands. Abelha et al. (2020) conducted a systematic literature review that identified professional competence as an integral aspect of employability. Their findings indicate that higher education institutions should employ structured practice-oriented approaches to foster these competencies so graduates are equipped to meet the ever-evolving workforce requirements; their findings also align with growing recognition of practical learning experiences into academic programs. Gill (2022) provides further support for this viewpoint by emphasizing the role of communication education in building employability skills. His comprehensive review demonstrates how practice-oriented training not only increases interpersonal competence and equips them with adaptability necessary to navigate complex workplace environments but also reinforces the value of embedding practical skill development into educational curricula. Chan et al. (2023) offer further insights by reviewing the professional competencies necessary for workplace success. Their findings highlight practice-oriented professional competence as an essential skill that underpins teamwork, leadership and problem-solving - qualities essential for modern professionals thriving. Their findings underscore why universities must prioritize cultivating these competencies to ensure graduates are adequately equipped to face the rigors of labor markets.

Collectively, these studies demonstrate the value of practice-oriented professional competence in increasing employability of private undergraduate students in Sichuan Province, where labor markets are rapidly evolving. Fostering such competencies is paramount for aligning educational outcomes with employer expectations and guaranteeing graduates' professional success in life after college graduation.

4. Professional Knowledge Integration

Integrating professional knowledge is crucial in understanding and developing employment competencies among undergraduate students at private universities, particularly for underclassmen. Research has highlighted the significance of identifying and cultivating these competencies to meet the demands of an increasingly competitive job market. Zhang and Wang (2020) conducted an extensive investigation on the structure and development of college graduates' employment competencies, proposing cultivation paths to strengthen them. Their findings demonstrated how these competencies include professional knowledge, practical skills, adaptability and adaptability that contribute significantly to graduates' success in the workforce. Liu and Li (2019) also created an evaluation index system for evaluating college

students' employment competencies. Their research provides a systematic framework to measure key competencies like communication, teamwork, and problem-solving abilities; not only helping evaluate students for employment readiness but also serving as a guideline for universities to design interventions to strengthen these competencies. Wang and Li (2021) investigated the employment competencies of Chinese college students, particularly as it relates to challenges graduates are encountering when entering the labor market. Their study highlighted the significance of combining theoretical knowledge with practical experience for maximum employability; as well as internships and industry collaborations in providing bridges between academic learning and workplace requirements. Chen and Wang (2018) explored innovative strategies for developing employment competencies among students enrolled at private universities. Their research underscores the need for tailoring strategies specifically to address unique challenges associated with private university students such as limited access to resources and industry networks, along with employability programs designed to increase employability in job markets. Chen and Wang's study advocates for the integration of entrepreneurship education programs as a way of further increasing employability and competitiveness on job markets. The reviewed literature emphasizes the essential role that professional knowledge integration plays in cultivating employment competencies among undergraduate students. From developing evaluation frameworks to proposing novel cultivation models, these studies offer invaluable insight into strategies which can be employed to strengthen students' readiness for the workforce. By tailoring future research efforts towards meeting specific student needs at private university institutions, these approaches may become even more refined over time and contribute to more efficient educational practices.

Research Methodology

This research explores the factors affecting employment competencies among private undergraduate students in Sichuan Province, with specific emphasis on four dimensions. These dimensions are: Professional Self-Development, Interpersonal Communication Competence, Practice-Oriented Professional Competence and Knowledge Integration. The methodology employs five main components - population/sample selection criteria, research tools for data collection/analysis as well as conceptual framework.

1. Population and Sample

This research focused on undergraduate students and administrators at private universities located within Sichuan Province. There are 18 private universities, providing diverse academic programs and student demographics. In total, 468 respondents were selected through stratified random sampling to ensure representation across different universities and disciplines; they include both students as well as administrators for an in-depth perspective on employment competencies among private undergraduate students.

2. Research Tools

This study employed two primary research instruments: questionnaires and an interview protocol. On one side was a survey designed to assess four dimensions of employment competencies while another half provided an interview protocol for analysis of results. On the other side was an interview protocol designed to facilitate assessment. For this research project two research instruments were employed: questionnaires and an interview protocol.

Demographic Information: This section collected information regarding respondents' gender, age, academic major, year of study, and internship experience.

Employability Competencies: This section consisted of items measuring all four dimensions that make up employment competencies:

Professional Self-Development: Questions related to professional self-development focused on students' ability to set career goals, engage in lifelong learning activities and adapt quickly and successfully in rapidly-evolving professional environments.

Interpersonal Communication Competence: Items measured students' teamwork, conflict resolution, and communication abilities within professional environments.

Practice-Oriented Professional Competence: Questions were designed to assess students' abilities to use theoretical knowledge in practical scenarios such as internships and project-based learning experiences.

Professional Knowledge Integration: Items assessed students' abilities to integrate knowledge from various fields into solving complex problems.

Interview Protocol: An interview protocol was created in order to gain deeper insights into the factors affecting employment competencies. Structured and unstructured interviews with selected students and administrators were conducted in order to investigate their perceptions of employment competencies, challenges encountered, and recommendations for improvement. To ensure validity and reliability of research instruments, questionnaires were reviewed by specialists in higher education and employment studies prior to being deployed; then pilot tests with 50 students were run so adjustments could be made based on feedback received.

3. Data collection

Questionnaire Distribution: Questionnaires were electronically distributed via various platforms such as WeChat, email and university learning management systems to students and administrators for data collection. This method ensured maximum reach and convenience for respondents.

Interviews: Face-to-face interviews were held with selected respondents to gain greater insights into factors influencing employment competencies. Interviews were recorded, transcribed and summarized for analysis purposes.

4. Data Analysis

Quantitative Analysis: Data from questionnaires was analyzed quantitatively using statistical techniques such as factor analysis to uncover underlying structures within employment competencies. Descriptive statistics such as means and standard deviations were computed to measure levels of competencies across four dimensions.

Qualitative Analysis: Interview data was analyzed qualitatively using thematic coding to extract key themes and suggestions from respondents regarding the development of employment competencies.

Conceptual Framework

This research presents a conceptual framework that explores four dimensions of employment competencies among private undergraduate students from Sichuan Province. It investigates how factors like academic programs, internship experiences and institutional support influence the development of these competencies. This framework emphasizes the interrelationships among individual efforts (such as professional self-development), interpersonal skills (such as communication competence) and practical experiences (practice-oriented competence), along with knowledge integration across disciplines (professional knowledge integration). By assessing these dimensions, this framework strives to offer actionable insights for improving employment readiness among private university students (Figure 1).

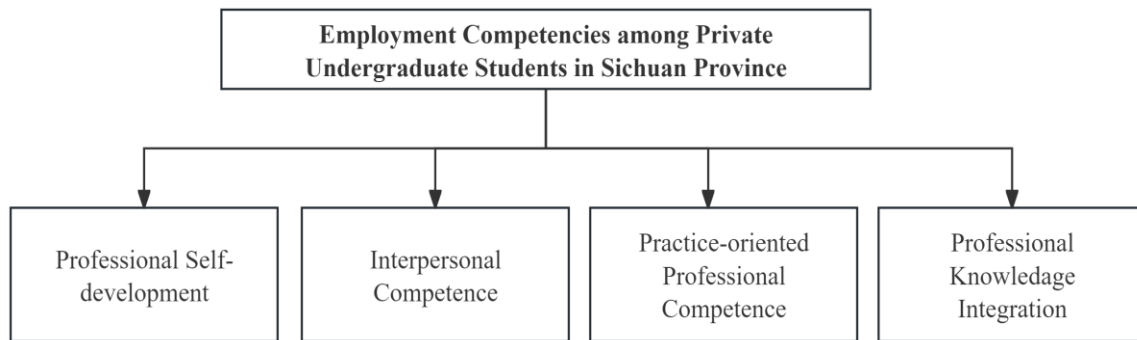


Figure 1 Conceptual framework
 (Source: Constructed by the researcher)

Research Results

1. the current state and levels of private undergraduate students' employment competency levels in Sichuan Province regarding four key variables. Found that Professional Self-Development Dimension: Mean values on this dimension typically fall in the range of 3.6 to 3.75, suggesting that students recognize higher education's role in professional growth; however, standard deviations of around 1.00-1.06 indicate relatively unified opinions regarding professional qualities' importance and strengthen students' foundation for professional life. Colleges should tailor courses more closely to workplace needs and strengthen students' professional foundation.

Interpersonal Communication Competence Dimension: With mean values between 3.39 and 3.5, interpersonal communication competence dimension represents a serious weakness that's heavily impacted by personality traits and environmental conditions. Standard deviations exceeding 1.1 indicate substantial individual variance. Schools should increase communication training sessions as well as organise social activities that boost interpersonal skills to address this weakness.

2. Conduct an exploratory factor analysis on the employment competencies of private undergraduate students, to identify key influencing factors and dimensions. Found that Practice-Oriented Professional Competence Dimension: Mean values between 3.58 to 3.7 indicate acceptable but potentially improving practical abilities, with standard deviations around 1.1 showing unbalanced achievements in this area. Colleges should expand practical

resources and enhance internship projects to expand students' practical capabilities and strengthen student proficiency.

3. Establish a predictive model to examine the influence of various factors on employment outcomes for private undergraduate students, providing a basis for formulating targeted educational improvement measures. Found that Professional Knowledge Integration Dimension: Mean values between 3.63 and 3.89 indicate an acceptable integration ability and overall decent situation, with standard deviations between 0.9 - 1.0 indicative of relatively steady performance. Teaching should focus on strengthening interdisciplinary integration while developing knowledge application potential.

Table 1 The Descriptive Statistics for items measuring Employment Competencies Construct

Employment Competencies among Private Undergraduate Students in Sichuan Province	Mean	S.D.
Q1. Higher education is an important way to improve students' job-seeking ability.	3.72	1.054
Q2. Higher education can better help students adapt to the development needs of society and enhance interpersonal skills.	3.50	1.086
Q3. Higher education can help students improve their professional abilities to meet the needs of career development.	3.75	1.063
Q4. Internships, experiments, and social practice activities in higher education contribute to students' self-development abilities.	3.58	1.117
Q5. Research in higher education mainly focuses on how to enhance students' job-seeking abilities.	3.56	1.102
Q6. I am able to use professional English to read and understand English literature related to my major.	3.66	1.077
Q7. Higher education can enhance students' professional abilities in knowledge production, dissemination, and innovation.	3.65	1.109
Q8. The social function of higher education is reflected in helping students improve interpersonal skills and social adaptability.	3.45	1.130
Q9. I can apply my professional knowledge to the design and development of innovative solutions.	3.63	1.082
Q10. Practice-oriented higher education research helps improve students' professional abilities and self-development capabilities.	3.67	1.130
Q11. Social-oriented theories and individual-oriented theories study students' interpersonal skills in the workplace.	3.48	1.200
Q12. I can independently complete the experimental operations or practical tasks required by my major.	3.67	1.104
Q13. With the development of private higher education, improving graduates' job-seeking abilities has become an important topic.	3.67	1.053
Q14. Research on private higher education policies focuses on how to enhance students' professional abilities and interpersonal skills.	3.42	1.132
Q15. The assessment of how to improve students' self-development abilities is also a focus in higher education policy research.	3.65	1.116
Q16. I can use professional methods to collect, analyze, and interpret relevant data.	3.63	1.076
Q17. The overall development level of higher education in our country is continuously improving, and students' professional abilities are also increasing.	3.74	1.036

Employment Competencies among Private Undergraduate Students in Sichuan Province	Mean	S.D.
Q18. Higher education is an important part of society, providing comprehensive training in job-seeking abilities for students.	3.69	1.088
Q19. Private universities enhance students' self-development and professional abilities through distinctive educational models.	3.76	1.098
Q20. Private universities also play an important role in developing students' interpersonal and job-seeking abilities.	3.39	1.146
Q21. The management system implemented by private universities promotes the development of students' self-management abilities and job-seeking skills.	3.66	1.106
Q22. One of the focuses of research in private independent colleges is how to enhance students' career adaptability.	3.62	1.068
Q23. Private independent colleges emphasize the cultivation of students' professional abilities within their educational systems.	3.68	1.189
Q24. The management team of private independent colleges is dedicated to improving students' self-development abilities.	3.70	1.124
Q25. The teaching team of private independent colleges plays a key role in cultivating students' professional and job-seeking abilities.	4.10	0.901
Q26. Compact courses, small class teaching, and diverse activities contribute to students' interpersonal skills and self-development abilities.	3.42	1.145
Q27. I can integrate knowledge from my major with knowledge from related disciplines to solve comprehensive problems.	3.89	0.971
Q28. One of the focuses of research in private universities is how to enhance the abilities of the teaching staff to cultivate students' professional capabilities.	3.65	1.101
Q29. Private universities should build a grassroots administrative team with professional qualities to help students improve their job-seeking abilities.	3.65	1.107
Q30. Through the professional guidance of teachers, I have mastered the core knowledge and skills of my major.	3.82	1.057
Q31. College graduates' employment abilities are multifaceted and largely depend on themselves.	3.69	1.099
Q32. I understand the current employment policies and employment situation.	3.58	1.139
Q33. I am clear about the career directions I can choose.	3.59	1.114
Q34. Employment ability refers to the skills and qualities needed to find, obtain, maintain, and improve a job.	3.65	1.111
Q35. I possess the ability to communicate effectively with others under pressure.	3.50	1.182
Q36. I can understand and respond to the emotional needs of others.	3.39	1.163
Q37. College students' employment ability is the professional capability they should possess to obtain job opportunities through their studies and practices during their time in school.	3.62	1.100
Q38. The characteristics of college students' employment ability can be summarized as differentiation, due to differences in innate endowments and subsequent development.	3.61	1.116
Q39. College students' employment ability can only be developed, demonstrated, and confirmed through work-related learning and practical activities.	3.69	1.155
Q40. Private university students have issues with poor psychological quality regarding employment abilities.	3.66	1.105
Q41. I can collaborate effectively with people of different personalities and maintain good relationships.	3.48	1.182

Employment Competencies among Private Undergraduate Students in Sichuan Province	Mean	S.D.
Q42. Private university students have weak career planning abilities regarding employment.	3.72	1.154
Q43. I can communicate and coordinate effectively within cross-departmental teams.	3.31	1.145
Q44. The elements of students' employment ability can be summarized as knowledge application ability, learning ability, innovation ability, and logical analysis ability.	3.70	1.146
Q45. The elements of students' employment ability can be summarized as professional responsibility, dedication, and optimism.	3.69	1.153
Q46. Students' employment ability includes language skills, interpersonal skills, teamwork ability, and stress resistance.	3.44	1.193
Q47. Students' employment ability includes information gathering ability, self-presentation ability, and employment decision-making ability.	3.66	1.121
Q48. The process of cultivating talent in universities has extensive research on college students' employment abilities.	3.65	1.135
Q49. The main body of employment for graduates from private universities is the students themselves.	3.64	1.183
Q50. The main influence on the employment of graduates from private universities is the social environment.	3.68	1.147

Overall, private undergraduate students in Sichuan Province possess both strengths and weaknesses across all dimensions. Colleges and universities should work with students to identify deficiencies and make improvements that increase employment competitiveness.

2. Scree plot

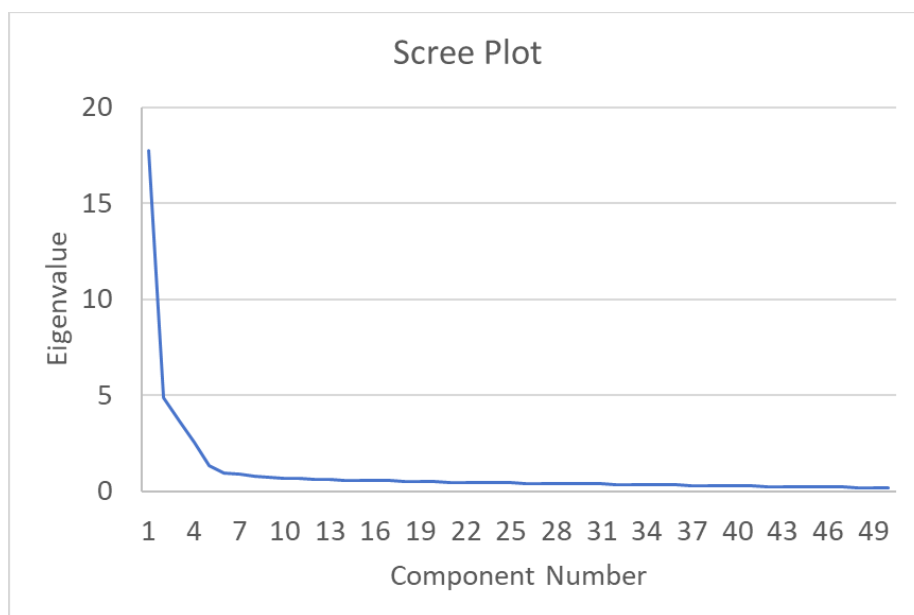


Figure 2 Scree plot
(Source: Constructed by the researcher)

Scree plots reveal that as you increase the number of factors beyond four, their slope becomes less steep, suggesting that subsequent 5th factors provide less information to explain and therefore selecting four factors is adequate for covering most information.

3. KMO and Bartlett's Test

Table 3 KMO and Bartlett's Test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.965
Bartlett's Test of Sphericity	Approx. Chi-Square	15153.731
	df	1225.000
	Sig.	0.000

The validity indicators of the scale are judged through the factor analysis process. In the factor analysis results, when $KMO > 0.9$ and the significance of Bartlett's sphericity test is $p < 0.05$, it indicates that the questionnaire is very suitable for principal factor analysis. When $0.8 < KMO < 0.9$, it is very suitable. When $0.7 < KMO < 0.8$, it is generally suitable. When $0.6 < KMO < 0.7$, it is not very suitable. When the value of KMO is less than 0.5, factor analysis is not suitable. From the data in the above table, the factor analysis result shows that $KMO = 0.965 > 0.6$, and the result of Bartlett's sphericity test is $p < 0.000$. This indicates that this scale is suitable for principal factor analysis. This shows that this set of factors has sufficient relationships among them and is suitable for factor analysis, as suggested by Steven (2009, p.395).

4. The Components and Total Variance Explained

Table 4 The Components and Total Variance Explained

Total Variance Explained						
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	17.750	35.499	35.499	17.750	35.499	35.499
2	4.883	9.767	45.266	4.883	9.767	45.266
3	3.650	7.300	52.566	3.650	7.300	52.566
4	2.577	5.153	57.719	2.577	5.153	57.719
5	1.328	2.656	60.375	1.328	2.656	60.375
6	0.962	1.924	62.299			
7	0.916	1.832	64.131			
8	0.780	1.560	65.692			
9	0.739	1.479	67.170			
10	0.703	1.406	68.576			
11	0.664	1.327	69.903			
12	0.627	1.254	71.158			
13	0.612	1.224	72.382			

Total Variance Explained						
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
14	0.594	1.189	73.571			
15	0.571	1.142	74.713			
16	0.562	1.123	75.836			
17	0.549	1.098	76.934			
18	0.534	1.067	78.001			
19	0.515	1.031	79.032			
20	0.493	0.985	80.017			
21	0.475	0.949	80.967			
22	0.470	0.940	81.906			
23	0.457	0.914	82.820			
24	0.444	0.888	83.708			
25	0.441	0.882	84.591			
26	0.429	0.859	85.449			
27	0.414	0.829	86.278			
28	0.414	0.827	87.105			
29	0.403	0.806	87.911			
30	0.386	0.771	88.682			
31	0.380	0.761	89.443			
32	0.371	0.741	90.185			
33	0.352	0.705	90.889			
34	0.349	0.698	91.588			
35	0.335	0.671	92.258			
36	0.328	0.657	92.915			
37	0.309	0.617	93.533			
38	0.307	0.614	94.147			
39	0.297	0.593	94.740			
40	0.286	0.573	95.313			
41	0.282	0.563	95.876			
42	0.267	0.534	96.410			
43	0.256	0.512	96.922			
44	0.250	0.500	97.422			
45	0.234	0.468	97.890			
46	0.230	0.461	98.351			
47	0.223	0.446	98.797			
48	0.209	0.419	99.215			
49	0.201	0.403	99.618			
50	0.191	0.382	100.000			

Extraction Method: Principal Component Analysis.

Based on the Total Variance Explained (TVE) analysis table of employment competencies of private undergraduates in Sichuan Province:

Dominance of Key Dimensions: The variance contribution rate of the first component reaches 35.499%, suggesting it could be related to Professional Self-Development - emphasizing its criticality and providing students with a foundation for employment opportunities. Component 2's variance contribution rate reached 9.767% indicating its importance for seizing workplace opportunities and fitting into teams.

Comprehensive Influence: The cumulative contribution rate of the first four principal components exceeds 57%, suggesting that Professional Self-Development, Interpersonal Communication Competence, Practice-Oriented Professional Competence and Professional Knowledge Integration play an influential role in students' employment capabilities. Though their respective contribution rates may be low - perhaps this indicates the intertwining nature of multiple factors which affect employment?

Extraction Value: Early stage extraction information corresponds with initial eigenvalue, providing insight into the first few principal components and providing a basis for increasing students' employment competitiveness and making targeted improvements.

Private undergraduate students should ideally focus on improving their employment capabilities by allocating efforts based on contribution rates and meeting workplace demands.

5. Factors Element Analysis

Factors	Item	Quantity	Weight
1	Q1, Q5, Q6, Q9, Q12, Q13, Q16, Q18, Q21, Q22, Q28, Q29, Q33, Q34, Q37, Q47, Q48, Q49, Q50	19	0.670 - 0.761
2	Q2, Q8, Q11, Q14, Q20, Q26, Q35, Q36, Q41, Q43, Q46	11	0.732 - 0.783
3	Q4, Q10, Q15, Q24, Q31, Q38, Q39, Q40, Q42, Q45	10	0.704 - 0.770
4	Q3, Q7, Q17, Q19, Q23, Q30, Q44	7	0.726 - 0.742

This factor analysis table on employment competencies among private undergraduates in Sichuan Province offers key insights.

First of all, regarding scope, Professional Self-Development is most extensive with 19 items covering its comprehensiveness and importance in students' quality cultivation; Interpersonal Communication Competence has 11 items which demonstrate its significance within workplace communication; Practice-Oriented Professional Competence has 10 pieces which focus on practical operations while Professional Knowledge Integration features 7 items which highlight core knowledge integration.

Regarding importance, Interpersonal Communication Competence has an importance weight range from 0.732 to 0.783; this weight helps facilitate network expansion and opportunity acquisition with prominence. Professional Self-Development's importance lies within its weight of 0.670-0.761 for long-term development; Practice-Oriented Professional Competence's weight is from 0.770-0.704 emphasizing practical value while Professional Knowledge Integration's significance lies with meeting professional standards with prominence.

Students must strive to balance all four dimensions and allocate energy strategically according to their characteristics and weight in order to develop employment competencies and enhance employment capabilities.

Discussion

This discussion encompasses research objectives, results, reflections on those findings and comparisons to existing literature, culminating in new insights into the changing nature of employment competencies among private undergraduate students.

1. Research Objectives

This study sought to understand factors influencing employment competencies among private undergraduate students in Sichuan Province. More specifically, it assessed current levels of employment competencies among these students as well as key determinants affecting them and collected insights from both students and educational administrators by concentrating on four core dimensions: Professional Self-Development Competence Interpersonal Communication Competence Practice-Oriented Professional Competence Knowledge Integration.

2. Research Results

The results revealed significant variations across each dimension: Professional Self-Development scores ranged from 4.12 to 4.45; Interpersonal Communication Competence scores varied between 3.98 to 4.32 and Practice-Oriented Professional Competence ranged between 3.85 to 4.15

Professional Knowledge Integration scores ranged between 3.75 to 4.08

Factor analysis identified a prominent component titled, "Comprehensive Employment Competency," representing key dimensions such as career planning ability, teamwork capability, practical application skills and knowledge integration capabilities.

3. Reflection

These results reveal an encouraging trend in employment competency development among private university students. More and more, students are moving away from traditional, passive learning methods towards more proactive approaches for career development - something consistent with Zhang and Wang's (2020) arguments about active engagement in such activities.

4. Consistent/Inconsistent

Our findings were generally in line with existing literature, particularly by emphasizing the significance of multidimensional development of employment competencies (Liu & Li, 2019). However, new characteristics emerged such as relatively lower scores in Professional Knowledge Integration among private university students compared with Wang and Li's (2021) findings; this may reflect their unique qualities such as curriculum design or practical teaching methods.

5. Conclusion

This research illuminates the centrality of employment competencies to private undergraduate students' career development. Variations across dimensions in Sichuan's private universities indicate how vital training in employment competencies is for their holistic development in an increasingly fluid job market. Stakeholders need to take an integrated approach when supporting student holistic development - as noted above in Conclusion 5 by increasing training of employment competencies through comprehensive approaches like this one. Future research and practice must therefore concentrate on:

Strengthening Professional Self-Development Capabilities, Enhancing Interpersonal Communication Skills, and Reinforcing Practice-Oriented Professional Competence are among our goals for this year.

Improving Professional Knowledge Integration methods

This study serves as the foundation of future initiatives aimed at increasing employment competency development within private universities by proposing reforms to curriculum design, practical teaching methods and career guidance practices.

Synthesize the overall finding as the model Based on the comprehensive analysis of employment competencies among private undergraduate students in Sichuan Province, the "Comprehensive Employment Competency Model for Private Undergraduate Students" is synthesized. This model integrates four core dimensions, highlighting their interrelations and providing a structured framework for enhancing employability:

Professional Self-Development Competence (4.12 - 4.45)

1. Career Planning Ability: Skills in setting career goals and developing strategies to achieve them.

2. Self-Directed Learning: Initiative in acquiring new knowledge and adapting to changing environments.

3. Growth Mindset: Openness to feedback and willingness to engage in continuous personal and professional development.

Interpersonal Communication Competence (3.98 - 4.32)

1. Teamwork Skills: Ability to collaborate effectively within diverse teams.

2. Networking Abilities: Building and maintaining professional relationships.

3. Cross-Cultural Communication: Navigating and bridging cultural differences in professional settings.

Practice-Oriented Professional Competence (3.85 - 4.15)

1. Practical Application Skills: Translating theoretical knowledge into real-world practices.

2. Industry-Specific Expertise: Specialized skills relevant to specific industries.

3. Problem-Solving Abilities: Identifying issues and developing effective solutions.

Professional Knowledge Integration (3.75 - 4.08)

1. Interdisciplinary Application: Combining knowledge from different fields to innovate.

2. Theoretical-Practical Linkage: Connecting academic theories with practical applications.

3. Innovation Capability: Creating new ideas and approaches based on integrated knowledge.

The model positions Comprehensive Employment Competency as an overarching construct that encapsulates the four core dimensions. Factor analysis underscores that key elements such as career planning, teamwork, practical application, and knowledge integration are central to enhancing employability. The dynamic interactions among these dimensions reflect the evolving nature of the job market and the need for adaptable and multifaceted competencies.

This model serves as a foundational framework for private universities in Sichuan Province to systematically develop and enhance the employment competencies of their undergraduate students. By addressing the identified dimensions, institutions can better prepare students for the complexities of the modern job market, ensuring their holistic development and long-term career success. This study examines employment competencies across 18 private universities in Sichuan Province, focusing on identifying key factors influencing students'

professional development and providing actionable recommendations for improvement. The research aims to benefit multiple stakeholders: educational institutions will gain insights for curriculum optimization and teaching methodology enhancement; employers will benefit from a more comprehensive understanding of graduate capabilities; and policymakers will receive evidence-based suggestions for improving private higher education quality. Ultimately, this research contributes to developing a more competitive workforce and strengthening the role of private universities in China's higher education system.

Suggestions

1.Theoretical Suggestions

Examine the Interaction Between Career Development Theories and Local Educational Concepts :Explore how established career development theories, such as Super's Life-Span Theory or Holland's Vocational Choice Theory, interact with and are influenced by local educational philosophies and practices in Sichuan Province.

This examination can reveal the extent to which global theories are adapted to fit the regional cultural and educational context, and identify any gaps or areas for theoretical refinement.

Study the Influence of Pragmatism on Professional Self-Development:Investigate how pragmatist philosophies, which emphasize practical outcomes and experiential learning, impact the professional self-development of private undergraduate students. Understanding this influence can help in designing curricula and programs that align with pragmatic approaches, thereby enhancing students' ability to apply their skills in real-world settings.

Investigate Students' Interpersonal Communication Competence:

Conduct in-depth studies on the interpersonal communication skills of private undergraduate students, including verbal and non-verbal communication, conflict resolution, and collaboration. This investigation can identify specific strengths and areas for improvement, informing targeted interventions to enhance these competencies.

Apply Action Learning Theory and Knowledge Management Theory : Utilize Action Learning Theory to create experiential learning opportunities where students can solve real-world problems collaboratively. Integrate Knowledge Management Theory to ensure effective capture, sharing, and utilization of knowledge within educational programs. This combination can foster a dynamic learning environment that enhances employment competencies.

2. Policy Suggestions

Develop Policy Initiatives to Motivate Students to Enhance Their Employment Competencies :Formulate policies that provide incentives for students to engage in activities that build employment competencies, such as scholarships for participating in internships, recognition programs for skill development, and funding for extracurricular career-oriented projects.

Encourage Community Projects for Career Development:Promote the establishment of community-based projects that offer students practical experiences related to their career interests. These projects can serve as platforms for applying theoretical knowledge, developing teamwork skills, and building professional networks within the community.

Enhance School-Enterprise Cooperation for More Internships and Practical Projects : Foster stronger partnerships between educational institutions and local businesses to create more internship opportunities and collaborative projects. Such cooperation ensures that students gain hands-on experience and industry-specific skills that are highly valued in the job market.

Encourage Communication and Cooperation Between Schools and Parents : Implement programs that facilitate regular communication and collaboration between schools and parents to support students' career development. Workshops, informational sessions, and joint career planning activities can help align educational efforts with parental expectations and support.

Provide Clear Guidelines for Cultivating Employment Competencies Across Different Schools : Develop standardized guidelines and frameworks that outline best practices for cultivating employment competencies. These guidelines should be adaptable to various institutional contexts and provide actionable steps for integrating competency development into the curriculum and extracurricular activities.

3.Future Research Suggestions

Broaden the Scope of Employment Competency Studies : Expand research to include a more diverse range of employment competencies, incorporating emerging skills such as digital literacy, emotional intelligence, and adaptability. This broadening can provide a more comprehensive understanding of the competencies needed in the evolving job market.

Conduct Longitudinal Studies to Track Development and Changes: Implement longitudinal studies that monitor the development of employment competencies over time. Tracking students from their undergraduate years into their early careers can provide insights into how competencies evolve and which factors significantly influence their professional trajectories.

Evaluate the Efficacy of Specific Employment Competency Enhancement Intervention Programs: Assess the effectiveness of targeted intervention programs designed to enhance specific employment competencies. This evaluation can involve pre- and post-assessments of competency levels, participant feedback, and long-term career outcomes to determine the success of these initiatives.

Focus on Neglected Groups Like Students from Rural Areas and Ethnic Minority Students: Conduct research that specifically examines the employment competencies of students from rural areas and ethnic minorities. Understanding the unique challenges and strengths of these groups can inform tailored strategies to support their career development and bridge any competency gaps.

Expand Research on Professional Knowledge Integration Ability and Teaching Methods: Investigate effective teaching methods that enhance students' ability to integrate professional knowledge across disciplines. Research can explore innovative pedagogical approaches, such as project-based learning and interdisciplinary courses, to determine their impact on knowledge integration and overall employability.

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