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Peer influence and the translation of employability competencies into career readiness among Chinese university graduates

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ABSTRACT

Graduate career readiness for flexible and platform-based work remains uneven, even among students who report employability competencies. This study examined whether peer influence strengthens the association between employability competencies and career readiness among final-year undergraduates in regional private universities in China. A quantitative cross-sectional survey was conducted with 462 students from three private universities in Yunnan. Employability competencies were measured through digital literacy, self-management competence, and communication and collaboration competence, while career readiness was operationalized as perceived readiness for flexible and platform-based work. Data were analyzed using the Statistical Package for the Social Sciences (SPSS), Analysis of Moment Structures (AMOS), and the PROCESS macro. Employability competencies were positively associated with career readiness, and peer influence significantly moderated this association. The relationship was stronger at higher levels of peer support, role modeling, and career-related information. The findings indicate that career readiness depends not only on individual competencies but also on peer-supported social learning environments, highlighting the value of structured peer-based career learning in higher education.

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1. INTRODUCTION

Higher education is increasingly expected to prepare graduates for uncertain, digital, and flexible labor markets rather than only for conventional full-time employment. Technological change, digital transformation, and digital labor platforms are reshaping employers' skill expectations and requiring graduates to manage tasks, communicate digitally, evaluate opportunities, and adapt to unstable work conditions [1]–[3]. Accordingly, graduate career readiness has become an important educational outcome, particularly for students who need to apply their competencies in emerging forms of work, including flexible and platform-based work [4].

Employability competencies are central to graduate career readiness because they represent transferable capabilities that help graduates respond to changing work requirements. Recent studies show that employability in higher education includes not only job attainment but also competencies related to learning,

adaptation, career agency, digital competence, and social interaction [4], [5]. In digital and flexible work contexts, these competencies are especially important because graduates must search for information, evaluate online opportunities, communicate with others, manage tasks, and collaborate in technology-mediated environments [6].

However, possessing employability competencies does not necessarily mean that graduates are ready to apply them during the transition to work. Employability reflects capability resources, whereas career readiness reflects the extent to which graduates feel prepared to enter, adapt to, and act within work environments [7], [8]. The key issue is therefore not only whether graduates possess employability competencies, but also under what social conditions these competencies are translated into readiness for flexible and platform-based work.

Peer influence may be an important social condition in this translation process. Social cognitive career theory (SCCT) explains that career behavior is shaped by personal capabilities, self-beliefs, outcome expectations, contextual supports, and social learning experiences [9]. Peers may provide career information, encouragement, role modeling, and normative cues that help graduates interpret uncertain career opportunities; however, limited research has examined whether peer influence strengthens the relationship between employability competencies and career readiness in regional private higher education contexts [10], [11].

To address this gap, this study examines whether peer influence moderates the relationship between employability competencies and career readiness among final-year undergraduates in private higher education institutions in regional China. Career readiness is operationalized as graduates' perceived readiness to participate in flexible and platform-based work, measured through a gig economy participation readiness scale. Rather than claiming representativeness for all Chinese university graduates, the study is framed within the context of private universities in Yunnan, China, where students may face uncertain school-to-work transitions and rely on peer networks when interpreting emerging work opportunities.

The novelty of this study lies in its focus on the translation of employability competencies into career readiness rather than on competency possession alone. It also introduces peer influence as a contextual amplifier that strengthens this translation within regional private higher education in China. The study contributes by explaining why graduates with similar competency levels may differ in readiness, extending SCCT to flexible and platform-based work contexts, and providing evidence from a regional private higher education setting. The research question is: To what extent does peer influence moderate the relationship between employability competencies and career readiness? Based on this question, the study tests two hypotheses: employability competencies positively influence career readiness, and peer influence positively moderates this relationship.

2. THEORETICAL BASIS AND PROPOSED RESEARCH MODEL

2.1. Social cognitive career theory

SCCT provides the main theoretical lens for explaining how employability competencies may be translated into career readiness under different social conditions. The theory argues that career-related behavior is shaped by the interaction among personal capabilities, self-beliefs, outcome expectations, learning experiences, and contextual supports [12]. In this study, peer influence is understood as a form of contextual support that may strengthen or weaken the relationship between graduates' employability competencies and their readiness for flexible and platform-based work.

Recent career readiness research also emphasizes that young people's transitions into work are shaped by how they explore, experience, and evaluate future employment opportunities [13]. This view suggests that career readiness is not a purely internal psychological state but a developmental outcome formed through the interaction between personal resources and social experiences. SCCT is therefore appropriate for this study because it links individual capability resources with contextual support factors in explaining career-related readiness.

2.2. Employability competencies and career readiness

Employability competencies are treated as the core individual capability resource in the proposed model. In higher education research, employability is increasingly understood as a multidimensional construct that includes transferable skills, career agency, digital competence, adaptability, and social interaction capabilities [4], [5]. In digital and platform-based work settings, graduates need to search for information, use digital tools, communicate with clients or collaborators, manage tasks independently, and respond to changing work requirements [14], [15].

In this study, employability competencies are conceptualized as a second-order construct consisting of digital literacy, self-management competence, and communication and collaboration competence. Digital literacy enables graduates to access information and complete digitally mediated tasks, self-management

supports time control and task organization, and communication and collaboration competence helps graduates interact with peers, clients, employers, and platform users. This multidimensional structure is consistent with evidence that digital skills, communication, collaboration, and problem-solving are central to graduate employability and labor-market readiness [16].

Career readiness is the outcome variable in the proposed model. It refers to graduates' perceived readiness to participate in flexible and platform-based work during the transition from university to the labor market. This definition is appropriate because the original scale measured gig economy participation readiness and therefore captures readiness for flexible and platform-based career participation rather than readiness for all possible employment forms.

Based on this logic, employability competencies are expected to positively influence career readiness. Graduates with stronger competencies are more likely to understand flexible work requirements, evaluate online opportunities, communicate effectively, manage tasks independently, and adapt to platform-based work arrangements. Therefore, the first hypothesis is proposed as: employability competencies positively influence career readiness among final-year undergraduates in regional private higher education institutions in China (H1).

2.3. Moderating role of peer influence

Peer influence is positioned as the moderating variable in the proposed research model. In university settings, peers provide career-related information, emotional encouragement, behavioral examples, comparison standards, and informal access to work opportunities. Prior studies show that peer and social support can influence career adaptability, career decision self-efficacy, career exploration, and career choice processes within SCCT-related frameworks [10], [11].

In flexible and platform-based work contexts, peer influence may be especially important because many graduates learn about such work through informal peer networks rather than formal institutional channels. When peers share platform work experiences, discuss income opportunities, recommend digital tools, or encourage flexible work exploration, graduates may be more likely to apply their employability competencies to career decision-making. Conversely, weak or negative peer environments may reduce the likelihood that relevant competencies become career readiness.

This study therefore argues that peer influence does not replace employability competencies but strengthens the extent to which these competencies are converted into career readiness. Employability competencies provide the capability foundation, while peer influence provides the contextual condition that activates and directs these competencies toward emerging career pathways. Accordingly, the second hypothesis is proposed as: peer influence positively moderates the relationship between employability competencies and career readiness among final-year undergraduates in regional private higher education institutions in China (H2).

2.4. Proposed research model

The proposed model examines a direct relationship between employability competencies and career readiness and a moderating effect of peer influence. Employability competencies are treated as the independent variable, career readiness as the dependent variable, and peer influence as the moderator. Consistent with SCCT, the model links personal capability resources with contextual support in explaining career-related readiness.

3. RESEARCH METHOD

3.1. Research design

This study employed a quantitative cross-sectional survey design to examine the relationship among employability competencies, peer influence, and career readiness among final-year undergraduates in private universities in Yunnan, China. A quantitative design was appropriate because the study aimed to test hypothesized relationships among measurable constructs and estimate the moderating effect of peer influence [17]. Because all variables were measured at one point in time, the findings should be interpreted as perceived relationships rather than proven causal mechanisms; future studies should adopt longitudinal designs to examine how these variables develop across the school-to-work transition. Employability competencies were treated as the independent variable, career readiness as the dependent variable, and peer influence as the moderator. Career readiness referred specifically to perceived readiness for flexible and platform-based work.

3.2. Participants and data collection

Table 1 presents the demographic profile and background characteristics of the respondents. The table summarizes the distribution of respondents by age, university, study mode, gender, origin, prior paid gig or platform work experience, and career plan after graduation. These characteristics clarify the composition and contextual scope of the analytical sample.

The target population was final-year undergraduate students from private universities in Yunnan, China. Final-year students were selected because they were approaching graduation and located at a critical stage of transition from higher education to the labor market. The study does not claim that the sample represents all Chinese university graduates; instead, the findings should be understood as evidence from regional private higher education, where students may face distinctive employment uncertainty and rely on informal peer networks.

The survey was administered through Wenjuanxing, an online questionnaire platform commonly used in China. A total of 600 questionnaires were distributed over three months, and 462 valid responses were retained after excluding non-final-year respondents, responses completed in less than two minutes, straight-line answers, incomplete responses, or logically inconsistent answers. The final sample included 167 respondents from Yunnan College of Business Management, 156 from Yunnan Technology and Business University, and 139 from Kunming City College.

Table 1. Respondent profile

Variable	Category	Frequency (n)	Percentage (%)
Age	21 to 23 years old	155	33.5
	24 years old and above	307	66.5
University	Yunnan College of Business Management	167	36.1
	Yunnan Technology and Business University	156	33.8
	Kunming City College	139	30.1
Study mode	Full-time undergraduate	462	100.0
Gender	Male	214	46.3
	Female	248	53.7
Origin	From Yunnan Province	290	62.8
	From other provinces	172	37.2
Paid gig or platform work experience	Never participated	97	21.0
	Tried once or twice	273	59.1
	Participated frequently	92	19.9
Career plan after graduation	Formal employment in enterprises	145	31.4
	Further study	76	16.5
	Public sector employment	79	17.1
	Flexible employment, freelance work, or gig work	73	15.8
	Undecided	57	12.3
	Other	32	6.9

3.3. Measures

The questionnaire used a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). This article focused on three constructs: employability competencies, career readiness, and peer influence. Employability competencies were modeled as a second-order construct reflected by three first-order dimensions: digital literacy, self-management competence, and communication and collaboration competence. Digital literacy, self-management competence, and communication and collaboration competence were each measured using five items. The validity of this hierarchical measurement structure was subsequently examined through second-order confirmatory factor analysis.

To enhance instrument transparency, the career readiness items were adapted to the undergraduate context by focusing on perceived readiness for platform-based and flexible work rather than actual employment outcomes. The items were reviewed for clarity, relevance, and contextual suitability before data collection. The scale was further evaluated through reliability analysis, exploratory factor analysis, and confirmatory factor analysis, showing acceptable internal consistency and construct validity for this undergraduate cohort. Table 2 summarizes the operational definitions, number of items, dimensions, and measurement scale for the three constructs examined in this study.

3.4. Data analysis

The data were analyzed using the Statistical package for the social sciences (SPSS) version 27, analysis of moment structures (AMOS) version 29, and the PROCESS macro. Descriptive statistics and Cronbach's alpha were used to summarize the data and assess internal consistency. Exploratory factor analysis was conducted on the 31 items retained in the present article. Confirmatory factor analysis was

conducted in AMOS to assess standardized factor loadings, composite reliability (CR), average variance extracted (AVE), discriminant validity, and model fit [18]. Moderation analysis was conducted using the PROCESS macro with mean-centered variables, 5,000 bootstrap resamples, and 95% confidence intervals [19], [20]. Standard multivariate criteria were used to evaluate reliability, validity, and overall model adequacy [21].

Common method bias was considered because the study relied on a single self-reported questionnaire [22]. Harman's single-factor test was conducted using the 31 retained items and treated as an initial exploratory diagnostic rather than definitive evidence that method bias was absent [23]. Anonymous participation, neutral instructions, the absence of personally identifiable information, and aggregate data analysis were used as procedural safeguards.

Table 2. Measurement constructs used in this study

Construct	Operational definition	Items/dimensions	Scale
Employability competencies	Transferable capabilities for adapting to flexible and platform-based work	15 items: digital literacy; self-management competence; communication and collaboration competence	5-point Likert scale
Career readiness	Perceived readiness to participate in flexible and platform-based work	8 items	
Peer influence	Perceived peer information, encouragement, modeling, and support related to career and platform-based work opportunities	8 items	

3.5. Ethical considerations

The study followed ethical principles for survey-based educational research. Ethical approval was obtained from Yunnan College of Business Management, one of the participating institutions and the author's workplace, with the approval reference number YJG-EDU-20260620. Respondents were informed that participation was voluntary and that the data would be used only for academic research. The questionnaire did not collect personally identifiable information, and all responses were analyzed in aggregate form. Before completing the questionnaire, respondents were informed of the research purpose, confidentiality arrangement, and their right to withdraw from participation at any time.

4. RESULTS AND DISCUSSION

4.1. Descriptive results

Table 3 presents the descriptive results of the main constructs. Communication and collaboration competence had the highest mean score (M=3.50), followed by self-management competence (M=3.47), digital literacy (M=3.44), peer influence (M=3.42), and career readiness (M=3.20). These results indicate that respondents perceived themselves as having moderately positive employability competencies and peer influence, while their readiness for flexible and platform-based work was comparatively lower.

This pattern is meaningful for understanding the transition from capability possession to career readiness. Although respondents reported relatively positive employability competencies, their career readiness score was lower. This suggests that the key challenge may not be only a lack of competencies but also the incomplete conversion of competencies into readiness for emerging forms of work [24].

Table 3. Mean scores of the main constructs

Construct	Mean
Digital literacy	3.44
Self-management competence	3.47
Communication and collaboration competence	3.50
Peer influence	3.42
Career readiness	3.20

4.2. Measurement model results

Table 4 shows satisfactory reliability and convergent validity. All Cronbach's alpha and CR values exceeded 0.70, while all AVE values exceeded 0.50. Exploratory factor analysis was conducted using the 31 items retained in the present study. The Kaiser–Meyer–Olkin (KMO) measure was 0.944, and Bartlett's test of sphericity was statistically significant (Chi-square (χ^2)=9139.919, degrees of freedom (df)=465, $p<0.001$). Five factors with eigenvalues greater than 1 were extracted, jointly accounting for 65.045% of the total

variance. The rotated solution showed that the items loaded primarily on their intended factors without problematic cross-loadings.

Confirmatory factor analysis was subsequently conducted using the same 31 items. All standardized factor loadings were statistically significant and ranged from 0.631 to 0.881. The five-factor measurement model demonstrated acceptable fit: χ^2=1050.694, df=424, χ^2/df=2.478, root mean square error of approximation (RMSEA)=0.057, comparative fit index (CFI)=0.930, Tucker–Lewis index (TLI)=0.923, incremental fit index (IFI)=0.930, and standardized root mean square residual (SRMR)=0.037. The Fornell–Larcker and heterotrait–monotrait ratio (HTMT) results also supported discriminant validity among the five first-order constructs.

A separate second-order confirmatory factor analysis was conducted to examine employability competencies as a higher-order construct reflected by digital literacy, self-management competence, and communication and collaboration competence. The standardized second-order loadings were 0.713 for digital literacy, 0.720 for self-management competence, and 0.791 for communication and collaboration competence, and all were statistically significant at p<0.001. The second-order model demonstrated acceptable fit: χ^2=253.977, df=87, χ^2/df=2.919, RMSEA=0.065, CFI=0.954, TLI=0.944, IFI=0.954, and SRMR=0.034. The second-order construct also demonstrated satisfactory convergent validity and reliability, with an AVE of 0.551 and a CR of 0.786.

Table 4. Reliability and convergent validity results

Construct	Items	Cronbach's alpha	AVE	CR
Digital literacy	5	0.866	0.571	0.869
Self-management competence	5	0.859	0.556	0.861
Communication and collaboration competence	5	0.877	0.592	0.877
Employability competencies	15	0.906	0.551	0.786
Career readiness	8	0.913	0.571	0.913
Peer influence	8	0.918	0.590	0.920

Note: AVE and CR values for the second-order employability competencies construct were calculated from the standardized second-order loadings.

4.3. Common method bias

Common method bias was examined because the study used self-reported questionnaire data. Harman's single-factor test was conducted using the 31 items included in the present study. The unrotated solution produced five factors with eigenvalues greater than 1, and the first factor accounted for 41.427% of the total variance. This percentage was below the frequently used 50% criterion, indicating that no single factor explained the majority of the variance. However, because the value exceeded the more conservative 40% benchmark, common method bias cannot be completely excluded. The result was therefore interpreted cautiously and considered together with the procedural safeguards used in the study [22], [23].

4.4. Hypothesis testing

Table 5 presents the AMOS direct-path result and the PROCESS moderation results. The AMOS analysis showed a significant positive path from employability competencies to career readiness (β=0.642, CR=7.216, p<0.001), supporting H1. The PROCESS analysis showed that the interaction between employability competencies and peer influence was positive and statistically significant (B=0.142, SE=0.041, t=3.492, p=0.001), while the full moderation model explained 56.8% of the variance in career readiness (R^2=0.568, F=200.695, p<0.001), supporting H2.

Table 5. Direct and moderating effects

Relationship or predictor	Estimate	Test statistic	p-value	Result
Employability competencies → career readiness	β=0.642	C.R.=7.216	<0.001	H1 supported
Employability competencies	B=0.810 SE=0.056	t=14.483	<0.001	Significant
Peer influence	B=0.284 SE=0.041	t=6.867	<0.001	Significant
Employability competencies × peer influence	B=0.142 SE=0.041	t=3.492	0.001	H2 supported

Note: AMOS result reports the standardized structural path coefficient. The PROCESS results report unstandardized regression coefficients. Employability competencies and peer influence were mean-centered before the interaction term was created. The moderation model explained 56.8% of the variance in career readiness (R^2=0.568, F=200.695, p<0.001).

Table 6 reports the conditional effects at low, mean, and high levels of peer influence. The association between employability competencies and career readiness was significant at all three levels and increased from low (B=0.648, p<0.001) to mean (B=0.810, p<0.001) and high peer influence (B=0.972, p<0.001). Because all confidence intervals excluded zero, the relationship was stronger at higher levels of peer influence.

Table 6. Conditional effects of employability competencies on career readiness

Level of peer influence	B	SE	t	p-value	LLCI	ULCI
Low	0.648	0.060	10.789	<0.001	0.530	0.765
Mean	0.810	0.056	14.483	<0.001	0.700	0.919
High	0.972	0.083	11.651	<0.001	0.808	1.136

Note: low and high peer influence represent one standard deviation below and above the mean, respectively. The corresponding mean-centered values were -1.139, 0.000, and 1.139.

4.5. Discussion

The findings show that employability competencies were positively associated with career readiness among final-year undergraduates in private universities in Yunnan. Students with stronger digital literacy, self-management competence, and communication and collaboration competence reported greater readiness for flexible and platform-based work. This result supports the importance of transferable competencies for identifying opportunities, evaluating digital work arrangements, communicating effectively, and managing tasks independently [24]–[26].

Peer influence significantly strengthened the relationship between employability competencies and career readiness. Within SCCT, peer influence may be understood as contextual support that helps students interpret their competencies and may reinforce their self-efficacy and outcome expectations regarding flexible work [10], [12], [27]. The findings also suggest a plausible activation mechanism involving informational support, normative legitimation, and efficacy reinforcement, although these mechanisms were theoretically inferred rather than directly measured. The findings have practical implications for higher education. Career readiness and university–industry collaboration are increasingly important for graduates' transition to the labor market [28], [29]. Universities may institutionalize peer-supported career learning through peer-led digital portfolio reviews, collaborative industry-based project simulations, and alumni or senior-student experience-sharing activities.

Several methodological limitations should be considered. The study relied on self-reported data, and the first factor in Harman's single-factor test accounted for 41.427% of the total variance, which was below the 50% criterion but above the more conservative 40% benchmark. Although anonymity and neutral instructions were used to reduce response bias, future research should combine self-reports with behavioral indicators, peer or supervisor ratings, employer feedback, and a separate social desirability measure [30].

5. CONCLUSION

This study examined whether peer influence strengthens the relationship between employability competencies and career readiness among final-year undergraduates in private universities in Yunnan, China. Employability competencies were significantly and positively associated with career readiness, and this association was stronger at higher levels of peer influence. Students with stronger digital literacy, self-management competence, and communication and collaboration competence reported greater readiness for flexible and platform-based work, particularly when they perceived stronger peer support and career-related information.

The study contributes to graduate employability research by shifting attention from competency possession to competency translation. It extends SCCT by showing that peer influence may operate as contextual support that helps students interpret and activate their competencies. The findings also suggest that universities should integrate employability development with structured peer-supported career learning, including digital portfolio reviews, collaborative industry projects, and alumni experience sharing.

The findings should be interpreted in light of several limitations. The cross-sectional design does not establish causality, the sample was limited to regional private higher education institutions, and self-reported measures may have introduced social desirability and common method bias. Future studies should use longitudinal designs, include more diverse institutional contexts, and combine self-reported data with behavioral evidence, peer assessment, supervisor ratings, or employer feedback.

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AUTHOR CONTRIBUTIONS STATEMENT

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C : **C**onceptualization
M : **M**ethodology
So : **So**ftware
Va : **Va**lidation
Fo : **Fo**rmal analysis
I : **I**nvestigation
R : **R**esources
D : **D**ata Curation
O : Writing - **O**riginal Draft
E : Writing - Review & **E**diting
Vi : **Vi**sualization
Su : **Su**pervision
P : **P**roject administration
Fu : **Fu**nding acquisition

CONFLICT OF INTEREST STATEMENT

The authors declare no conflict of interest.

INFORMED CONSENT

Informed consent was obtained from all participants, whose participation was voluntary and anonymous.

ETHICAL APPROVAL

Ethical approval was obtained from Yunnan College of Business Management under reference number YJG-EDU-20260620. The study complied with ethical requirements for anonymous survey-based educational research.

DATA AVAILABILITY

The data are available from the corresponding author upon reasonable request, subject to ethical approval and participant confidentiality requirements.

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