

The Role of Gender in Employment Competitiveness in Applied Universities

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ABSTRACT

Employment competitiveness among university students is widely recognized as a critical indicator of the quality of higher education and the effectiveness of talent cultivation. It reflects not only students' career development and realization of personal aspirations but also broader family and societal expectations. This study investigated the role of gender in employment competitiveness in applied universities. Adopting a descriptive survey design, the research involved 1,227 third- and fourth-year students from Hengxing University, a private application-oriented institution in Shandong Province, China. Data were collected using a validated instrument titled *An Empirical Study on the Improvement of College Students' Employability Based on University Factors*, which demonstrated a high reliability coefficient ($\alpha = 0.995$). Descriptive statistics and independent samples t-tests were employed at a 0.05 significance level. The findings revealed a high overall level of employment competitiveness among students (weighted mean = 4.44) and a statistically significant gender difference ($t(1225) = 2.899$, $p = 0.004$), with male students scoring higher than their female counterparts. Consequently, the null hypothesis of equal means was rejected, indicating that gender has a measurable effect on employment competitiveness in applied universities.

Keywords: Gender Differences, Employment Competitiveness, Independent Samples t-test, Applied Universities, Higher Education

INTRODUCTION

In recent years, the employment competitiveness of university graduates has become a critical concern in both developed and developing countries. In China, the rapid expansion of higher education has intensified the competition for employment, posing significant challenges for graduates, especially those from local and private universities (Si, 2022). As such, improving the employment competitiveness of students has emerged as a central goal for higher education institutions. Within this context, demographic characteristics, particularly gender, have attracted growing scholarly attention, as differences in career aspirations, skill acquisition opportunities, and labour market perceptions may shape students' employment outcomes in distinctive ways (Jijun-Jie, 2016).

The employment competitiveness of university graduates has increasingly become a prominent research focus across multiple academic disciplines, including human resource management (Donald et al., 2019; Andoh,

Ompok, & Sukor, 2021), educational administration (Peng et al., 2021; Ompok & Teo, 2021), and psychology and sociology (Ma & Bennett, 2021). In response to the evolving demands of the labor market, higher education institutions have actively embedded employability-enhancing initiatives within their academic systems, aiming to equip students with the knowledge, skills, personal attributes, and behavioral competencies necessary for a smooth transition from academia to employment (Yang & Ompok, 2025; Shin & Idang, 2025; Shin et al., 2025). Complementing these practical initiatives, scholars have made sustained theoretical contributions by examining the multifaceted dimensions of employability, including its definitions (Harvey, 2001), influencing factors, and conceptual models (Dacre Pool & Sewell, 2007). Such theoretical advancements have provided valuable insights into strengthening talent cultivation and improving the overall quality and outcomes of higher education (Römogens et al., 2020).

However, research on the specific role of gender in shaping employment competitiveness remains inconclusive, with some studies reporting significant differences while others identifying negligible effects (Yu et al., 2023). This inconsistency highlights the importance of conducting further empirical investigations that take into account institutional types and cultural contexts. In particular, applied universities in China provide a relevant setting, as they emphasize practice-oriented education and talent cultivation while simultaneously reflecting the broader societal expectations and gender dynamics of the Chinese labor market (Zhan & Zou, 2013).

Across diverse educational and cultural contexts, gender continues to be a salient factor influencing both the development and perception of employability competencies. Multiple studies have identified distinct patterns in how male and female students evaluate their readiness for the labor market. For instance, women in STEM disciplines are often characterized by strong self-efficacy and a clear grasp of program expectations, whereas men tend to report higher confidence in technical and digital skill domains—suggesting differentiated strengths in employability profiles (Sánchez-Canut et al., 2023). Evidence from large-scale surveys further reinforces these disparities. Findings from China's College Student Survey reveal that, despite having comparable access to academic and extracurricular resources, female students frequently assess their employability lower than male students, who appear to benefit more from institutional engagement opportunities (Wen et al., 2023). Similar trends have been documented in European and African contexts, where male students reported stronger core skills, greater participation in extracurricular activities, and higher entrepreneurial intentions (Sánchez-Queija et al., 2023; Mwita, 2019). Collectively, these findings point to persistent gendered dynamics in employability that warrant deeper examination within applied university settings, particularly in the Chinese higher education landscape.

Social Role Theory (Eagly, 2013) posits that prevailing gender norms and cultural expectations significantly influence patterns of skill acquisition, the shaping of career ambitions, and the development of confidence across specific domains. This perspective suggests that differences in employability outcomes between male and female students may be partially explained by socially constructed roles and expectations that guide their educational and professional choices.

Statement of the Problem

Over the past decade, China has witnessed a steady increase in the number of university graduates, surpassing 11 million in 2023. Despite this expansion, both the employment rate and job-match quality have shown signs of decline. According to the *2022 College Student Employability Survey Report* (Zhou, 2023), only 15.4% of graduates had secured satisfactory positions by mid-April—down from 18.3% in the previous year. Many graduates face underemployment or delay job-seeking due to a mismatch between their skills and labour market demands (Wang & Wang, 2023). Employers increasingly prioritize practical experience, soft skills, and digital adaptability, yet many students continue to lack real-world readiness. This widening gap between graduate capabilities and workplace expectations underscores the urgency of investigating the factors that influence

employment competitiveness.

In China's rapidly evolving job market, the employment competitiveness of university graduates has thus become a pressing and complex issue (Jiang, Chen, & Lei, 2023). While government reforms have emphasized applied education and employability development, a significant disparity persists between the outcomes of higher education and the expectations of employers (Lockett & Feng, 2019). This challenge is particularly evident in private institutions such as Qingdao Hengxing University—one of Shandong Province's pilot units for applied undergraduate education—where resource limitations and weaker industry linkages constrain opportunities for students to acquire relevant skills.

Although existing research has explored a variety of determinants of graduate employment competitiveness—including the learning environment, school–enterprise cooperation, student motivation, internship experience, and career guidance—gender has emerged as an additional critical factor shaping graduates' employment outcomes. Studies indicate that men are often more inclined toward competitive environments than women, partly due to differences in confidence, social expectations, and cultural norms (Saccardo, Pietrasz, & Gneezy, 2018; Lackner, 2021; Qinghua & Ompok, 2022). Such disparities may influence how male and female graduates approach job applications, salary negotiations, and career advancement, thereby producing differentiated employment trajectories.

Employment competitiveness has therefore become a central concern for higher education policy and practice; however, persistent gender disparities remain in how students develop and perceive their career readiness. Even when afforded similar academic resources and extracurricular opportunities, female students frequently evaluate their employability less positively than their male counterparts. From a theoretical standpoint, Social Role Theory posits that entrenched gender norms and societal expectations shape patterns of skill development, career ambitions, and domain-specific confidence (Eagly, 2013). Complementing this perspective, Self-Efficacy Theory emphasizes that individuals' beliefs in their ability to perform specific tasks significantly shape their self-assessment and perceived employability (Bandura, 1997). Taken together, these perspectives suggest that gender-based gaps in employment competitiveness are not solely attributable to differences in actual competencies, but also to broader socio-cultural forces that shape students' educational engagement, self-concept, and career preparation.

In China's rapidly evolving job market, these gender-related dynamics intersect with broader structural mismatches, underscoring the urgency of examining both individual and institutional factors that influence graduate employability (Shao, Sharif, & Cassy Ompok, 2025; Liang, Abdullah, & Cassy Ompok, 2025). Despite government initiatives promoting applied education and employability reforms, notable disparities persist between the competencies cultivated by higher education and the practical demands of employers. This gap reflects not only misalignments in curriculum design and industry engagement but also the uneven distribution of resources across different types of institutions, particularly private universities, where structural limitations may further restrict students' opportunities to acquire market-relevant skills.

Objectives of the Study

The main object of this study is to identify the levels of employment competitiveness in Qingdao Hengxing University, China. The study will also examine if there is a mean difference of employment competitiveness based on gender in Qingdao Hengxing University, China.

Research Questions

- i. What is the level of employment competitiveness in Qingdao Hengxing University, China.

ii. Is there a statistically significant difference in the mean scores of employment competitiveness between male and female students at Qingdao Hengxing University, China?

Hypothesis

There is no statistically significant difference in the mean scores of employment competitiveness between male and female students at Qingdao Hengxing University, China.

METHODOLOGY

This study employed a descriptive survey design to examine the role of gender in employment competitiveness within the context of applied universities. The research was conducted at Qingdao Hengxing University, China, involving a randomly selected sample of 1,227 third- and fourth-year students. As a designated pilot unit for applied undergraduate education in Shandong Province, the institution aspires to develop into a nationally recognized applied university, making it an appropriate context for this investigation. Two research question and a null hypothesis were formulated to guide the study.

Data were collected using a researcher-developed instrument entitled *An Empirical Study on the Improvement of College Students' Employability Based on University Factors* (Ompok, Emison, & Teo, 2021; Ligin & Ompok, 2025). The questionnaire consisted of 24 items measured on a five-point Likert scale ranging from *strongly agree* (5) to *strongly disagree* (1). The instrument was organized into eight sub-dimensions: professional knowledge and skills, learning ability, strain ability, communication ability, practical ability, teamwork ability, information acquisition ability, and career planning ability. Content validity was established through expert review, and test-retest reliability yielded a coefficient of 0.995, indicating excellent stability and internal consistency of the instrument.

The dataset was analysed using both descriptive statistics (frequency counts, mean scores, standard deviations, and percentage distributions) and inferential statistics. Specifically, an independent samples t-test was applied to determine whether statistically significant differences existed between male and female students' employment competitiveness at the 0.05 level of significance. Ethical principles, including voluntary participation, confidentiality of responses and informed consent, were strictly adhered to throughout the research process.

RESULTS

Research Question 1: What is the level of employment competitiveness in Qingdao Hengxing University, China.

Table 1 presents the descriptive statistics of employment competitiveness among students at Qingdao Hengxing University.

Table 1: Descriptive Statistics of Employment Competitiveness (N = 1227)

Item	Mean	Std. Deviation
1. Communicate with others in English fluently.	4.27	0.995
2. My professional skills are firmly mastered.	4.41	0.821
3. I have obtained professional vocational qualifications.	4.35	0.905
4. In the conflict between study and entertainment, I will give priority to study.	4.41	0.826

5. I can learn without supervision.	4.42	0.809
6. I can study hard even if I do not like the course.	4.42	0.828
7. No matter how the external environment changes, I can adapt quickly.	4.44	0.795
8. I can handle emergencies with ease.	4.44	0.803
9. I am able to adjust my mindset in time.	4.45	0.792
10. No matter how the external environment changes, I can adapt quickly.	4.45	0.796
11. I can handle emergencies with ease.	4.45	0.783
12. I am able to adjust my mindset in time.	4.45	0.782
13. I can effectively use experience to solve problems.	4.45	0.785
14. I can learn from experience in practice.	4.47	0.770
15. When encountering difficulties, I can combine my professional knowledge to deal with them.	4.45	0.790
16. I can solve tough problems as a team.	4.44	0.795
17. In order to ensure the smooth solution of the problems, I will seek suggestions of team members.	4.46	0.786
18. I will effectively cooperate with the team to complete the task.	4.46	0.778
19. Access to information through multiple channels.	4.47	0.778
20. Be able to accurately grasp the key to information.	4.45	0.786
21. Can filter out false information in the mass of information.	4.45	0.795
22. It is believed that good career planning ability can improve the success rate of job-hunting.	4.46	0.788
23. Have a clear plan for your future career development.	4.46	0.786
24. Have a career plan that promotes self-development.	4.46	0.785

Weighted Average = **4.44**

The descriptive results indicate that the sampled students generally reported a high level of employment competitiveness, with mean scores across all measured dimensions ranging from 4.27 to 4.47 on a five-point Likert scale. The relatively narrow range of mean differences (approximately 0.20) and low standard deviations (mostly below 1.00) suggest a high degree of homogeneity in self-assessed employability within the cohort.

Research Question 2: Is there a statistically significant difference in the mean scores of employment competitiveness between male and female students at Qingdao Hengxing University, China?

Table 2 presents the group statistics of employment competitiveness by gender, while Table 3 summarizes the results of the independent-samples t-test.

Table 2: Group statistics on Employment Competitiveness (T-test)

	Gender	N	M	SD
Employment Competitiveness	Male	561	4.504	0.771
	Female	666	4.377	0.757

Table 3: Independent-Samples T-test for Employment Competitiveness by Gender

Levene's Test for Equality of Variances	F	Sig.	t	df	Sig.(2-tailed)	Mean Diff	SE Diff
Assuming equal variances	.333	.564	2.899	1225	.004	.127	.044
Not assuming equal variances			2.895	1182.557	.004	.127	.044

Levene's test for equality of variances was not significant (Sig. = .564), indicating that the assumption of homogeneity of variances was met. Under the assumption of equal variances, the t-test revealed a statistically significant difference between male and female students, $t(1225) = 2.899$, $p = .004$. The mean difference was 0.127.

DISCUSSION

The descriptive statistics reveal that the respondents generally perceived themselves as possessing notable strengths in professional competence, practical abilities, job-search strategies, and workplace attitudes. Nonetheless, the consistently high mean scores observed across all dimensions may, in part, be attributable to self-enhancement tendencies or social desirability effects, phenomena commonly associated with self-reported assessments of career-related attributes. These preliminary results establish a foundation for the subsequent inferential analyses aimed at identifying factors that may account for variations in employment competitiveness.

An independent-samples t-test was employed to examine potential gender-based differences in students' employment competitiveness at Qingdao Hengxing University. As presented in Tables 2 and 3, male respondents reported higher mean scores for perceived employment competitiveness than their female peers. Levene's test for equality of variances returned a non-significant result ($p = .564$), indicating that the assumption of homogeneity of variances was met. Consequently, the equal-variance t-test was adopted, revealing a statistically significant difference between male and female students, $t(1225) = 2.899$, $p = .004$ ($< .05$). This outcome suggests that gender constitutes a significant factor influencing perceived employment competitiveness in the studied institutional context.

The present study identified a statistically significant advantage for male students in perceived employment competitiveness, aligning with prior research on gendered patterns in employability perceptions. For instance, Sánchez-Canut et al. (2023) reported that although female STEM students exhibited higher self-efficacy and program-related awareness, male students expressed greater confidence in technical and digital skill domains, reflecting divergent strengths in employability-related self-assessments.

Similarly, findings from China's College Student Survey (CCSS) indicated that, despite receiving comparable academic resources and extracurricular support, female students consistently rated themselves as less employable than their male counterparts, with the latter deriving greater benefit from institutional engagement opportunities (Wen et al., 2023). In the Spanish context, Sánchez-Queija et al. (2023) observed that female university students scored lower in self-perceived employability compared to male students, a gap not evident within vocational education cohorts. Evidence from Tanzania further reinforced this trend, revealing that male students reported stronger core employability skills, higher levels of extracurricular participation, and greater intentions toward self-employment (Mwita, 2019). Collectively, these converging findings suggest that gender-based disparities in employability perceptions are prevalent across diverse cultural and educational settings.

From a theoretical perspective, these gender disparities can be understood through the lens of Social Role Theory

(Eagly, 2013) and Self-Efficacy Theory (Bandura, 1997). Social Role Theory suggests that societal expectations and traditional gender norms shape skill acquisition, career aspirations, and confidence in specific domains. Self-Efficacy Theory posits that confidence in one's ability to perform tasks influences self-assessment and, by extension, perceived employability. In many educational contexts, male students' greater exposure to technical and leadership roles may reinforce their employability self-beliefs, whereas female students, despite strong academic performance, may internalize lower confidence in skill domains stereotypically associated with men.

CONCLUSION

The analysis revealed a statistically significant gender disparity in students' self-reported employment competitiveness, with male students indicating higher levels than female students. Although female students often exhibit strong academic self-efficacy, they may express lower confidence in their technical abilities and readiness for the labour market. Such patterns underscore the multifaceted relationship between gender, self-perception, and employability within the higher education context.

RECOMMENDATIONS

First, universities should implement structured career development initiatives that specifically address gender-related employability challenges, ensuring that academic performance is more effectively aligned with labor market demands. Second, the establishment of female-led mentorship programs and peer support networks can play a crucial role in strengthening professional identity and enhancing self-confidence among female students. Third, university career services should adopt gender-sensitive advising approaches and guarantee equal access to training and skill-building opportunities for all students. Finally, institutions should regularly assess students' employability perceptions to inform timely interventions and support evidence-based policy refinement.

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