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Research on High-Quality Employment of College Students from the Perspective of Self-Marketing: A Case Study of Local Institutions in Guangdong

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Abstract

Given the current phase of global economic recovery and the overall improvement in our labor market, there remains a surplus of labor relative to demand at certain educational levels. To proactively address the "promotion of high-quality and full employment" policy outlined in the 20th National Congress of the Communist Party and to explore the factors affecting high-quality employment for university students, this study, based on a review of relevant literature, designed a structural equation model with self-marketing as a mediating factor. It confirmed that personal, institutional, and societal factors exhibit a significant positive influence on achieving high-quality employment for university students in Guangdong Province. Additionally, it highlighted the pivotal role of a proactive job-seeking attitude in enhancing employment quality. The analysis further established that self-marketing, as a bridge connecting personal, institutional, and societal factors with high-quality employment, not only significantly boosts employment quality but also stands out as a crucial element among various influencing factors. This research provides local universities in Guangdong Province with effective self-marketing strategies to enhance students' self-marketing abilities and achieve high-quality employment in the new era.

Keywords

Self-Marketing, University Students, High-Quality Employment

1. Introduction

1.1. Research Background

With the rapid development of our economy, the demand for talent has significantly increased. However, the number of university graduates continues to rise, making high-quality employment an increasingly crucial issue amid intensifying market competition. Self-marketing, as an effective employment strategy, can help graduates better showcase their abilities and strengths, thereby enhancing their competitiveness and distinguishing themselves in the job market.

According to data from the Ministry of Education, the number of university graduates reached 9.09 million in 2021, an increase of 350,000 from the previous year; in 2022, the number rose to 10.76 million, marking a 1.67 million increase; and in 2023, it reached 11.58 million, with an additional 820,000 graduates. Despite the rising number of graduates, the overall employment rate remains high, with most universities in Guangdong Province reporting rates above 90%. However, a significant portion of graduates has not achieved full employment. The "2022 University Graduate Employment Strength Survey Report" by Zhaopin reveals a decline in job expectations among graduates, with 55% lowering their expectations due to external factors such as the economic environment, while only 27.2% have raised their expectations. Furthermore, 65% of graduates adjusted their job expectations in response to "job market competition," and 57.1% and 49.4% respectively were influenced by the "domestic economic situation" and "industry development conditions." This indicates that most graduates have a rational outlook on the pressures faced by the economy and job market, leading them to adjust their expectations accordingly. (Figure 1)
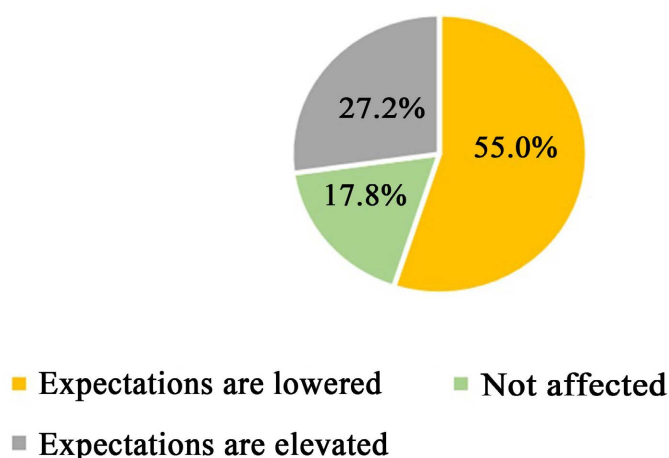

Figure 1. Impact of external economic factors on the employment expectations of the 2022 graduates.[1]

In the context of widespread higher education, the employment issues of university students have become a focal point for educational authorities. According

[1]The data comes from Zhaopin. (https://www.zhaopin.com/)

to the "China Education Employment Network Statistical Report," as of 2021, the employment rate for university graduates in China stands at only 58.8%. Of this, the short-term employment rate is 84.5%, while the long-term employment rate is 15.5%. Additionally, there is an imbalance in the employment structure, with graduates in the humanities facing significantly lower employment rates compared to their counterparts in the sciences. To enhance the employment rate of university students, educational departments must focus on increasing awareness of employment concepts, shaping scientific career perspectives, emphasizing career planning, and cultivating self-marketing skills. By offering relevant courses, organizing practical activities, and fostering academic and competitive engagement, universities can facilitate high-quality employment for their graduates.

1.2. Significance of the Study

1.2.1. Theoretical Significance

This study focuses on the employment challenges faced by current university students, particularly the phenomena of "slow employment" and the heavy pressure of job hunting. Through the innovative lens of self-marketing, it delves into the intrinsic nature of certain employment issues. By employing literature research methods and combining them with real-world survey data, the study explores the application of self-marketing in the contemporary job market, revealing its crucial role in enhancing employment competitiveness. Furthermore, this research enriches the theoretical framework of employment studies by integrating self-marketing theory with the employment practices of university students, offering new perspectives and approaches for high-quality employment research. Based on the analysis results and related case studies, the study systematically summarizes the pathways for university students to achieve high-quality employment through self-marketing, providing innovative concepts and methods for university career guidance services. Finally, by analyzing data on high-quality employment pathways in the Guangdong region, the study uncovers general patterns for achieving high-quality employment, offering valuable insights and references for research in similar regions or fields.

1.2.2. Practical Significance

Firstly, it can awaken the awareness of self-marketing, enhancing the importance university students place on it and encouraging them to showcase their unique strengths and advantages in the workplace through the improvement of their comprehensive qualities, thereby securing better employment opportunities. Secondly, self-marketing requires students to gain a deep understanding of market demands and trends, allowing them to more accurately define their career paths and reduce the occurrence of aimless job searching among graduates, thereby improving job satisfaction and stability. This study also offers new insights and methods for universities, suggesting that through the concept of self-marketing, universities can focus on cultivating students' self-awareness and communication skills, providing more effective career guidance services. Additionally, university

students in the Guangdong region can better align with market demands, achieving high-quality employment, which in turn promotes the region's economic development. This approach also offers valuable insights and references for graduates from other regions, helping them better plan their careers and enhance their employment competitiveness. Ultimately, it contributes to the cultivation of more talented individuals with innovative and practical abilities, thereby making significant contributions to the socio-economic development of the country.

1.3. Research Objectives and Content

Since the onset of the 21st century, the employment prospects for recent graduates in China have faced significant challenges. Data from the Ministry of Education indicates that the 2024 cohort of graduates from ordinary universities is expected to reach 11.79 million, an increase of 210,000 from the previous year. This influx of graduates into the job market has intensified competition, with university students not only contending with fierce competition from their peers but also with the 2023 graduates who have yet to secure full employment, thereby greatly exacerbating the pressure on job-seeking graduates.

To alleviate employment pressure and promote high-quality employment, this study examines university students from selected higher education institutions in Guangdong Province through the lens of self-marketing. It analyzes their awareness and capabilities in self-marketing, exploring effective strategies for enhancing high-quality employment opportunities. The research aims to provide constructive self-marketing strategies that facilitate high-quality employment for university students within Guangdong Province.

This study is divided into four main sections. The first section synthesizes extensive literature research and analysis, summarizing the general understanding of high-quality employment and self-marketing among university students over the past 5 to 10 years, both domestically and internationally. It also identifies potential factors influencing high-quality employment for university students. The second section, based on the literature review and case studies, hypothesizes the factors influencing high-quality employment and establishes a structural equation model for these factors. The third section involves designing a questionnaire, collecting data, and analyzing it using SmartPLS 4.0 software. Finally, the study explores pathways for university students to achieve high-quality employment through self-marketing, based on the results of the model testing and data analysis, and offers constructive recommendations for enhancing high-quality employment among university students.

1.4. Research Methods

Literature Review Method: This study utilizes the literature review method to extensively analyze relevant literature from the past 5 to 10 years on the current state of self-marketing among university students, self-marketing techniques, and student employability. This approach enhances the understanding of students' self-

marketing status and attitudes, establishes a foundational framework for self-marketing strategies, and serves as a basis for designing and refining the questionnaire, thereby ensuring the validity of the survey questions and providing a solid foundation for subsequent data analysis.

Survey Method: This study employs the survey method, integrating information gathered from the literature review to design a series of questions compiled into a questionnaire. This questionnaire was distributed to several universities in Guangdong Province to collect data on students' understanding of and practice of self-marketing. The analysis identifies gaps in students' understanding and key aspects of practical skills, further refining the self-marketing strategy framework and providing data-driven support for effective strategies to enhance self-marketing abilities.

Partial Least Squares Method: As a mathematical optimization technique, the least squares aims to find the best fit between data and a function by minimizing the sum of squared errors. The fundamental principle involves adjusting model parameters to achieve this minimization. This study applies least squares regression analysis to the extensive data obtained from the survey to explore the correlation between self-marketing and high-quality employment, clarifying key techniques for students to enhance high-quality employment through self-marketing.

1.5. Research Innovations

1.5.1. Innovative Research Perspective

From the perspective of self-marketing among university students, this study focuses on students' awareness and capabilities in self-promotion, analyzing the practical obstacles they face and developing strategies to enhance their self-marketing skills. By incorporating support from external higher education institutions and various societal sectors, the study adopts a comprehensive approach to explore self-marketing strategies and pathways to high-quality employment for university students.

1.5.2. Innovative Research Methods

We propose an innovative research method that integrates Structural Equation Modeling (SEM) with Smart-PLS (Partial Least Squares) technology to explore the mediating role of self-marketing. The innovation lies in its unique statistical processing capabilities and effective analysis of complex models. By combining SEM with Smart-PLS, we can more accurately describe and interpret the mediating effects of self-marketing, as well as examine its impact mechanisms and effects in various contexts. This novel approach enhances the efficiency and accuracy of data analysis and provides richer perspectives and insights into the real-world application of self-marketing.

2. Literature Review

2.1. Self-Marketing

In China, numerous scholars have proposed concepts related to "self-marketing."

A search on CNKI reveals that Su Wenping (2004: pp. 61-63) was among the first to define self-marketing as a value exchange, including both the conditions and outcomes of self-value exchange (value enhancement). In terms of value, it is related to an individual's abilities or attributes; regarding exchange conditions, it is based on the needs of all parties involved; and the result of the exchange is the value enhancement and satisfaction of all parties involved. Research on self-marketing for university students in China has only recently emerged from various perspectives, with a focus primarily on employment-related issues. Zhou Yan (2019: pp. 247-248) suggested that graduates from vocational colleges should enhance their professional competitiveness by continuously enriching and improving themselves, raising their job-seeking awareness, skills, professional qualities, and psychological resilience. They should establish a clear and accurate career perspective and improve their job-seeking abilities in alignment with social demands to lay a foundation for better employment. Liu Aiqin (2020: pp. 87-89) argued that employment marketing for university students must focus on market demands and students' professional qualities. Through scientific planning, students' practical abilities should be enhanced, and effective communication between schools, society, and students should be broadened. Multi-faceted measures should be implemented to assist students in employment, ultimately achieving their social value. Zhang Yan (2021: pp. 603-605) proposed that for students in vocational colleges, enhancing core competitiveness and effective self-marketing are essential to becoming strong contenders in the talent market.

The earliest appearance of related concepts abroad dates back to 1912 when the terms "marketing" were used by Welda, Butler, and Venice in the United States. However, these concepts were primarily market-oriented. Research on self-marketing abroad covers a variety of perspectives. Recent studies include Ahn (2019: pp. 135-142), who proposed that specialized educational programs, such as self-marketing, are necessary to develop and train supportive skills regardless of educational level. Belkora and Koehne (2021) described a systematic self-marketing approach to generate internship opportunities, which includes identifying desired contribution areas, recruiting allies, identifying role models, interviewing role models, showcasing one's value, and joining teams. Veeck et al. (2023: pp. 211-225) and others argue that marketing courses should offer multiple avenues to enhance students' self-efficacy, extend these skills to diverse student groups, and employ more standardized teaching methods for valuable interventions.

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2.2. Current Employment Situation of University Students

With the annual increase in the number of graduates, university students are facing immense employment pressure. Domestic research on the current employment situation of university students is quite extensive. From the students' perspective,

insufficient knowledge reserves, a disconnect between theory and practice, and a lack of experience are notable issues. Liu Minghui (2023: pp. 33-34) argues that fundamental factors in students' employment challenges stem from these deficiencies. Students often prefer jobs in developed cities and positions in government agencies or large state-owned enterprises. However, their lack of practical experience results in a narrow knowledge base, underdeveloped communication skills, and limited practical experience, leading to fewer job opportunities. Additionally, some students lack awareness of career planning, with many lacking clear employment intentions. From the perspective of higher education institutions, some universities exhibit impracticalities in their talent cultivation programs, outdated structures, and traditional specializations. Deng Shuyin (2023: pp. 158-160) notes that students are constrained by traditional views, lack innovation, face inadequate professional guidance, and suffer from insufficient talent development mechanisms and startup funding. From a societal and business standpoint, global economic downturns have significantly impacted some companies, reducing business volume, recruitment data, and job openings, while the number of graduates continues to rise, exacerbating the mismatch. Many companies prioritize whether graduates come from prestigious institutions, leaving many unable to find employment. Liu Xuebin (2023: pp. 31-33) highlights that changes in job opportunities, shifts in job-seeking channels, and the intensifying trends of public service exam fever and graduate school exam enthusiasm reflect the current employment situation of university students.

Research on university students' employment abroad began relatively early and is fairly extensive, though studies specifically addressing the current employment situation of university students are limited. In recent years, international research has focused on factors influencing employment, pressures and challenges faced, and methods for improving employment prospects. Regarding employment influencing factors, Zheng Zhang (2024: p. 34) investigated the employment factors affecting students from Qinghai studying at universities, examining their willingness to return to their hometowns and the influencing factors. Concerning the pressures and challenges faced by university students, Fan Li (2024: pp. 113-119) explored the challenges in the current climate and proposed optimization pathways. In terms of improving employment methods, Liya Ji (2024: pp. 113-119) suggested that designing a model for employment guidance, identifying educational signals and employment factors, can effectively address students' employment confusion and propose effective solutions to enhance employment rates.

2.3. High-Quality Employment

Domestic research on high-quality employment is summarized in Table 1 and categorized according to the varying focal points of different scholars' studies.

In recent years, international scholars have examined issues related to high-quality employment from various perspectives, as illustrated in Table 2.

Table 1. Research on high-quality employment in China.

Perspectives	Authors and Years	Viewpoints
Factors Influencing High-Quality Employment for University Students	Wang Ting (2020: pp. 108-114)	Both human capital and social capital influence the High-Quality Employment of university students.
Government Perspective	Tan Hong (2023: pp. 54-62)	The government needs to strengthen the integrated advantages of university graduates, achieving a seamless connection between "specialization-industry-profession-employment".
	Wang Yang, Zhao Yifan, Hou Shengdong (2023: pp. 53-65)	The government should treat youth employment, including that of university graduates, as a strategic priority, leveraging the market's decisive role in resource allocation while enhancing its regulatory function, with the overall goal of achieving high-quality and full employment for graduates.
Institutional Perspective	Hu Yedan et al. (2022: pp. 88-92)	Explored a work mechanism where school leadership places high importance and all members are deeply involved, facilitating high-quality employment and personal development for graduates.
	Wang Peishi (2023: pp. 50-53)	Universities can integrate ideological and political education with employment efforts, leverage policy guidance, and coordinate various social forces to promote high-quality development in graduate employment.
	Cai Lecai et al. (2023: pp. 109-113)	Universities need to help students establish a correct perspective on career choice, enhance the social recognition of their employment, and complete the comprehensive employment tracking system within institutions.
Cognitive, Affective, and Behavioral Perspectives	Chen Liang, Wang Jiawei (2024: pp. 63-72)	Proposed the development of a holistic education system, returning to the essence of education, and further suggested actionable measures for universities to support graduates in achieving high-quality employment.

Continued

	Zhang Yang (2021: pp. 60-63)	The pathways for achieving high-quality employment for vocational students include creating high-quality job opportunities to enhance the employment-driving effect of economic growth; deeply integrating talent development with industrial advancement to achieve synergistic development of technological innovation and employment growth; adhering to students' cognitive patterns and exploring new educational paradigms; and emphasizing the guiding role of employment value orientation to enhance students' capacity for high-quality employment.
Paths to Achieving High-Quality Employment	Xu Tao (2022: pp. 132-137)	From the perspective of changes in social stratification, pathways to high-quality employment for university students should simultaneously address four aspects: student self-initiative, university support, government facilitation, and system integration. This approach will create a positive employment ecosystem where people, resources, and environments mutually reinforce each other, advancing the goal of common prosperity.

Table 2. International research on high-quality employment.

Perspectives	Authors and Years	Viewpoints
Causes of Difficulties in Achieving High-Quality Employment	Liu Yanchang, Ma Mingyuan (2023: pp. 74-77)	The main reasons for the difficulty in achieving high-quality employment among liberal arts undergraduates include insufficient comprehensive abilities, weak awareness of high-quality employment, inaccurate positioning, and a lack of confidence.
Measures to Enhance Employment Quality	Jelena Zikic, UteChristine Klehe (2021: pp. 1023-1041)	Job seekers can enhance employment quality by proactively self-regulating and carefully planning their careers.
	Mario Pianta and Jelena Reljic (2022: pp. 783-711)	Allowing wage growth contributes to improving employment quality.
Effects of Factors Influencing High-Quality Employment	Rongmin and Benjamin (2023: pp. 63-69)	The study provides an in-depth analysis of the impact of internships and practical experiences on the employment quality of vocational students, as well as the influence of corporate involvement on their employment outcomes.

In summary, research on the current employment situation of college students reveals that while international studies are relatively sparse, domestic research is

more comprehensive and in-depth. Consequently, when exploring the employment conditions of college students, we primarily refer to and incorporate domestic literature. Both international and domestic research on self-marketing and high-quality employment began early and have increasingly expanded to include aspects such as career planning, self-promotion skills, social networks, and interpersonal relationships. However, existing studies have limitations. International research on high-quality employment is relatively scarce and often confined to specific industries, with limited in-depth analysis of college students' high-quality employment. Domestic research, while more extensive, lacks focused studies on self-marketing and high-quality employment within specific regions, with most investigations concentrating on strategies from the perspectives of government, educational institutions, and enterprises. Additionally, current research on self-marketing mainly addresses situational analysis and its impact, often lacking concrete strategic recommendations. Looking ahead, as new technologies such as social media and online platforms continue to evolve, the methods and tools for self-marketing will also change, presenting both opportunities and challenges for research and practice. Furthermore, despite the significant role of self-marketing in achieving high-quality employment, studies focusing on high-quality employment pathways from a self-marketing perspective remain limited. This paper aims to further explore the relationship between self-marketing and high-quality employment, with the goal of assisting college students in achieving their employment objectives and career development, and providing valuable insights for future research and practice.

3. Research Hypotheses and Model Development

3.1. Research Hypotheses

3.1.1. Individual-Level Factors and High-Quality Employment for College Students

Schultz posits that education enhances the labor productivity of individuals, leading to higher income levels and career development opportunities (Theodore, 1990). For recent graduates, High-Quality Employment serves as a direct measure and evaluation of the impact and accumulation of higher education on human capital (Gao et al., 2021: pp. 77-85). Achieving provincial-level or higher certificates in skill competitions positively influences employment quality (Chen, 2022). Factors such as political affiliation, holding class officer positions, professional skill certifications, and participation in extracurricular activities also have a significant positive impact on employment quality. Additionally, beyond academic performance and competitions, internships and involvement in student activities bolster social practice skills, significantly affecting choices regarding employment locations, industries, and salary levels upon graduation (Huang, 2012: pp. 52-58). Furthermore, research indicates that an early and clear understanding and planning of one's future, including career planning, correlates with higher employment quality (Li et al., 2022: pp. 46-59). Thus, this study proposes the following hypotheses.

H1: Personal factors have a significant positive impact on the High-Quality Employment of college graduates.

3.1.2. University-Level Factors and High-Quality Employment for College Graduates.

Regarding job search channels, the information released by universities and departments remains the primary source of job information for graduates (Yue et al., 2023: pp. 138-154). As the main provider of human resources, universities must align their programs with labor market demands (Yan, 2021); otherwise, graduates may face significant challenges in securing employment if their qualifications are not market-recognized (Huang, 2006). Additionally, the design of university curricula is crucial. Regularly offering career guidance courses and providing continuous career counseling throughout a student's university years can enhance High-Quality Employment for graduates. Furthermore, the most direct route for students to access career guidance services is through their university's career services. University career guidance encompasses career planning, job information collection, job search, interview techniques, and entrepreneurial support, which play a critical role in shaping students' employment capabilities. Insufficient career guidance from universities can adversely affect the quality of student employment (Chen, 2013). Hence, this study proposes the following hypothesis.

H2: Institutional factors have a significant positive impact on the High-Quality Employment of university graduates.

3.1.3. Social Factors and the High-Quality Employment for University Graduates

In terms of social factors, Wang Ting's research indicates that university students with strong social capital are more likely to achieve high-quality employment. However, when Zhong Yunhua approached the issue from the perspective of social capital, he identified negative impacts, noting that the availability of social opportunities also affects High-Quality Employment for university graduates (Zhong, 2018: pp. 58-65). To mitigate these negative effects, it is crucial to create a fair employment environment. On the one hand, it is essential to regulate the job market to ensure that graduates can fully utilize their talents; on the other hand, establishing accurate and authentic employment information platforms is fundamental to enhancing High-Quality Employment for the post-2000 generation (Wang, 2024: pp. 61-63). Platforms such as major job recruitment websites help reduce the difficulty of obtaining job information, and the transparency of job postings facilitates students' choices and career planning (Wang, 2022). Additionally, domestic research on the employment quality of university students indicates that a more extensive and richer social network positively influences the improvement of employment quality (Chen et al., 2011: pp. 21-31). Therefore, this study proposes the following hypothesis.

H3: Social factors have a significant positive impact on the High-Quality Employment of university students.

3.1.4. The Impact of Self-Marketing on University Students' High-Quality Employment, Considering Personal, Institutional, and Social Factors

Job-seeking significantly impacts personal development and future prospects, making a proactive attitude essential. Insufficient job-seeking skills are a major factor contributing to the employment difficulties faced by vocational graduates. A passive approach, characterized by waiting for employers to make contact rather than actively engaging in self-promotion, results in a lack of direction and determination during the job search. This absence of self-marketing opportunities and the failure to persist in securing a satisfactory position inevitably leads to lower employment quality.

Harnessing one's subjective initiative and creativity to boldly "market" oneself is crucial for taking control of the job search process. Accurate self-positioning significantly impacts a graduate's ability to secure employment (Zhou, 2009: pp. 54-56). Proper job targeting helps graduates identify suitable career opportunities in a timely manner. Furthermore, as students enter the workforce, their unfamiliarity with societal conditions necessitates a robust display of personal skills and capabilities during self-marketing. For institutions, aiding students in developing self-marketing strategies not only increases their chances of securing employment opportunities or contracts but also ensures higher High-Quality Employment outcomes (Liu, 2020: pp. 87-89). By showcasing their abilities, students can enhance their prospects for better employment. Additionally, with varying target markets and industry-specific operational models, students should align their job search with their preferences and skills, selecting appropriate marketing methods and strategies based on market characteristics. Engaging in relevant activities, showcasing oneself, and leveraging personal strengths in social practices can facilitate resource integration and improve job prospects (Wu & Li, 2015: pp. 19-21). Thus, this study proposes the following hypothesis.

H4: Self-marketing has a significant positive impact on High-Quality Employment for university students.

H5: Personal factors have a significant positive impact on self-marketing.

H6: Institutional factors have a significant positive impact on self-marketing.

H7: Social factors have a significant positive impact on self-marketing.

H8: Self-marketing mediates the relationship between personal factors and the High-Quality Employment for university students.

H9: Self-marketing mediates the relationship between institutional factors and the High-Quality Employment for university students.

H10: Self-marketing mediates the relationship between social factors and the High-Quality Employment for university students.

3.2. Model Establishment

Based on the literature review and research hypotheses outlined above, we propose a structural equation model with self-marketing as a mediating variable. As illustrated in this model, personal factors, school factors, and social factors are all

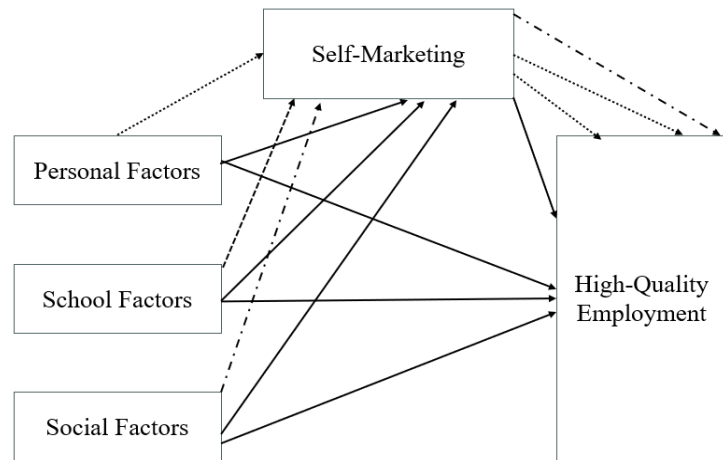correlated with high-quality employment. (Figure 2)

Figure 2. Research model.

4. Questionnaire Design and Data Collection

4.1. Questionnaire Design

Basic Information Section. The first section of the questionnaire gathers fundamental details, including the student's gender, age, and level of education.

Scale Items. The scale section consists of several subscales: individual factors, institutional factors, social factors, employment quality, and self-marketing. The individual factors scale includes respondents' academic performance, internship experience, future plans, and involvement in student leadership roles. The institutional factors scale covers the availability of relevant courses and employment resources provided by the respondent's institution. The social factors scale assesses respondents' perceptions of fairness in social distribution and access to resources. The employment quality scale measures respondents' satisfaction with their current job. The self-marketing scale evaluates respondents' overall abilities and attitudes toward self-marketing. All scales in this study use a five-point Likert scale, with options ranging from "1 = Strongly Disagree" to "5 = Strongly Agree."

4.2. Pre-Test and Modification of the Questionnaire

Before distributing the official questionnaire, it was necessary to ensure that each question was clearly articulated and free from ambiguity, while also guaranteeing the reliability and validity of the final survey. To achieve this, two instructors currently involved in research projects and ten recent graduates were selected. The questionnaire was sent to them online for review. The instructors provided professional feedback, while the students offered insights on the clarity and comprehensibility of the questions. Based on their suggestions, revisions were made to unclear or ambiguous wording. Additionally, a class of 51 students from a college in Guangdong participated in a pre-test during a class meeting. The results were then analyzed using SPSS 26.0 to test for reliability and validity. For reliability,

Cronbach's Alpha and composite reliability coefficients of each dimension were calculated, both of which exceeded 0.7, indicating good reliability. In terms of validity, the KMO values were also greater than 0.8, demonstrating excellent reliability and validity.

4.3. Questionnaire Survey and Data Collection

The survey data was collected via the Wenjuanxing platform and distributed to class groups through WeChat or QQ group chats. A total of 734 questionnaires were sent out, and 665 were returned through various channels. To ensure the credibility and validity of the responses, the data was exported from the Wenjuanxing platform and carefully screened. Questionnaires with short response times or those with missing answers or identical responses across all questions were considered invalid and removed. After thorough filtering, 610 valid questionnaires were obtained, resulting in an effective response rate of 91.73%.

5. Data Analysis and Model Testing

5.1. Descriptive Statistical Analysis

This study employed an open-ended questionnaire survey to collect research data, targeting undergraduate students who have been employed for up to five years post-graduation. A total of 610 valid questionnaires were collected.

In this survey, the sample consists of 262 males, accounting for 43.0%, and 348 females, representing 57.0%. While females slightly outnumber males, the overall distribution is relatively balanced, reflecting a well-represented gender demographic. Regarding educational background, 31.5% have an associate degree or vocational training, 57.9% hold a bachelor's degree, and 10.7% possess a graduate degree. This distribution adequately represents the educational levels of recent graduates and allows for an analysis of factors affecting high-quality employment across different educational backgrounds. In terms of age, 3.3% are under 18, 36.7% are between 18 and 23, 50.3% are between 24 and 30, and 9.7% are over 30. Overall, the sample's age distribution aligns well with the typical profile of university graduates. (Table 3)

Table 3. The basic characteristics of the sample include.

	Options	Frequency	Percentage (%)
Gender	Male	262	43.0%
	Female	348	57.0%
Educational Background	Associate Degree or Vocational Training	192	31.5%
	Bachelor's Degree	353	57.9%
	Graduate Degree	65	10.7%
Age Group	Under 18 years	20	3.3%
	18-23 years	224	36.7%
	24-30 years	307	50.3%
	Over 30 years	59	9.7%

5.2. Reliability and Validity Testing

5.2.1. Reliability Analysis

Reliability testing assesses the accuracy and dependability of a questionnaire, also known as reliability analysis. This study utilized Cronbach's Alpha (α) and Composite Reliability (CR) as indicators. Typically, a Cronbach's Alpha coefficient greater than 0.6 indicates that the sample scale's reliability has passed the test; between 0.7 and 0.8 suggests good reliability; and above 0.9 signifies very high reliability. A CR value greater than 0.7 indicates high questionnaire reliability. Analysis using the Algorithm function in SmartPLS 4.0 revealed that Cronbach's Alpha values for Personal Factors, School Factors, Social Factors, Employment Quality, and Self-Marketing all exceeded 0.85. Additionally, the Composite Reliability values for these variables also surpassed 0.85, indicating that the questionnaire demonstrates excellent reliability. (Table 4)

Table 4. Reliability analysis results.

	Cronbach's α	Composite reliability
Personal Factors	0.886	0.913
School Factors	0.880	0.917
Social Factors	0.868	0.910
Self-Marketing	0.853	0.888
Employment Quality	0.922	0.937

5.2.2. Validity Analysis

Validity refers to the degree to which a measurement tool accurately captures the intended construct. It primarily includes content validity, convergent validity, and discriminant validity.

Convergent Validity

Convergent validity reflects the degree to which a latent variable is represented by its observed indicators, primarily assessed through factor loadings and Average Variance Extracted (AVE). It is generally considered that if factor loadings and AVE values exceed 0.5, the convergent validity is adequate. According to Hair, a latent variable is deemed to possess good convergent validity if factor loadings are greater than 0.7.

In this study, data analysis was performed using SmartPLS 4.0, and the results are presented in Table 5. All variables have AVE values exceeding 0.5; however, two-factor loadings are slightly below 0.7. Overall, the average factor loadings for each variable are above 0.7, indicating that the questionnaire exhibits good convergent validity and is retained (Liu, 2011).

Table 5. Convergent validity analysis.

Variable	Item	Factor Loading	Average Variance Extracted (AVE)
Personal Factors	A1	0.802	0.637
	A2	0.819	
	A3	0.778	
	A4	0.812	

Continued

	A5	0.795	
	A6	0.783	
School Factors	B1	0.866	
	B2	0.864	0.735
	B3	0.853	
	B4	0.846	
Social Factors	C1	0.844	
	C2	0.850	0.716
	C3	0.857	
	C4	0.835	
Employment Quality	D1	0.830	
	D2	0.836	
	D3	0.816	
	D4	0.822	0.532
	D5	0.815	
	D6	0.851	
	D7	0.809	
Self-Marketing	E1	0.767	
	E2	0.747	
	E3	0.728	
	E4	0.761	0.682
	E5	0.696	
	E6	0.708	
	E7	0.696	

Discriminant Validity

Discriminant validity measures the extent to which a latent variable is distinct from other latent variables. This study employs two primary methods to assess discriminant validity: the HTMT (Heterotrait-Monotrait Ratio) and the Fornell-Larcker Criterion. According to the Fornell and Larcker standard, the correlation coefficients between different dimensions should be less than the square root of the average variance extracted (AVE). HTMT is a measure of the heterotrait-monotrait ratio, and for discriminant validity to be established, the heterotrait-monotrait correlation should be low, generally below 0.85, though some earlier studies suggest a threshold of below 0.9. As shown in Table 6, the square roots of the AVE values (values on the diagonal) are greater than the correlations between variables (values off the diagonal). Additionally, Table 7 indicates that all HTMT values are below 0.85. Therefore, the model meets both HTMT and Fornell-Larcker Criterion standards, demonstrating good discriminant validity.

Table 6. Discriminant validity—HTMT test.

	Personal Factors	School Factors	Social Factors	Self-Marketing	High-Quality Employment
Personal Factors	1				
School Factors	0.500	1			
Social Factors	0.396	0.481	1		
Self-Marketing	0.608	0.556	0.589	1	

Continued

High-Quality Employment	0.457	0.509	0.494	0.573	1

Table 7. Discriminant validity—Fornell-Larcker criterion.

	Personal Factors	School Factors	Social Factors	Self-Marketing	High-Quality Employment
Personal Factors	**0.798**				
School Factors	0.441	**0.857**			
Social Factors	0.348	0.420	**0.846**		
Self-Marketing	0.530	0.483	0.508	**0.730**	
High-Quality Employment	0.415	0.459	0.443	0.509	**0.826**

5.3. Structural Model Testing

Once the scales have passed reliability and validity tests, structural model testing can be conducted to verify the hypothesized paths between latent variables. This involves several key components: collinearity diagnostics, coefficient of determination (R^2), path coefficients, and indirect effects analysis.

5.3.1. Collinearity Diagnostics.

Collinearity among factors can significantly skew path coefficients, necessitating a collinearity diagnostic. The Variance Inflation Factor (VIF) is commonly used for this assessment. Montgomery et al. (1999: pp. 347-348) suggest that a VIF value exceeding 5 indicates serious collinearity issues among the measured items (Montgomery et al., 1999: pp. 347-348). In this study, using the PLS Algorithm in SmartPLS 4.0, all VIF values were below 5, indicating that there are no collinearity concerns among the items. (Table 8)

Table 8. VIF results for observed variables.

Item	VIF	Item	VIF	Item	VIF
A1	2.006	C1	2.078	D6	2.633
A2	2.150	C2	2.123	D7	2.229
A3	1.903	C3	2.120	E1	2.124
A4	2.069	C4	1.988	E2	2.094
A5	1.905	D1	2.424	E3	1.969
A6	1.824	D2	2.462	E4	2.081
B1	2.261	D3	2.252	E5	2.042
B2	2.316	D4	2.294	E6	2.130
B3	2.201	D5	2.293	E7	2.007
B4	2.096				

5.3.2. The Coefficient of Determination

The coefficient of determination, also known as R2, R^2 or the goodness-of-fit index, reflects the extent to which latent variables account for their corresponding observed variables and is used to evaluate the explanatory power of a structural model. Miller Nancy Falk (1992: pp. 96-97) categorize R2 values as follows: 0.67

indicates strong explanatory power, 0.33 indicates moderate explanatory power, and 0.19 indicates weak explanatory power. Cohen (1988), in his study of user behavior, suggests that an R2 value greater than 0.13 denotes good explanatory capability.

As shown in Table 9, the coefficients of determination for self-marketing and high-quality employment are both greater than 0.33, indicating that the independent variables have substantial explanatory power over the dependent variables in this model.

Table 9. Goodness-of-Fit R^2 parameter test.

	R^2	R^2 Value
Self-Marketing	0.431	0.428
High-Quality Employment	0.356	0.352

5.3.3. Predictive Relevance

In Smart PLS, the Stone-Geisser Q^2 test is used as a measure of predictive relevance, indicating how well exogenous constructs predict endogenous constructs. The Q^2 values for latent variables in the Smart PLS path model are computed using the Blindfolding procedure. In Smart PLS 4.0, the Q^2 values for this study's model were calculated with a cross-validation distance of 7. This distance, which typically ranges between 5 and 10, must not divide the total sample size evenly. With a total sample size of 610, which is not divisible by 7, a distance of 7 was chosen for the Q^2 test. A Q^2 value greater than 0 indicates that the exogenous constructs have predictive relevance for the endogenous constructs. As shown in Table 10, the Q^2 value for self-marketing is 0.227, and for high-quality employment, it is 0.240. Since all Q^2 values exceed 0, this study's model demonstrates predictive relevance for the exogenous constructs on the endogenous constructs.

Table 10. Q^2 parameter test table.

	SSO	SSE	Q^2 (= 1-SSE/SSO)
Personal Factors	3660	3660.000	0.000
School Factors	2440	2440.000	0.000
Social Factors	2440	2440.000	0.000
Self-Marketing	4270	3301.977	0.227
High-Quality Employment	4270	3247.240	0.240

5.3.4. Significance Testing of the Model

This study employs the Smart PLS software to construct models and pathways, followed by parameter estimation for each path to obtain path coefficients, T-values, and P-values. These metrics are used to test the model's path parameters, thereby validating the various hypotheses of the research.

In Smart PLS 4.0, the PLS algorithm is first used to calculate the path coefficient values for each path. The significance of these path coefficients is then tested using the Bootstrapping method, with subsamples set to 5000. The significance of the

path coefficients is determined by the t-statistic and p-value; when the absolute value of the t-statistic exceeds 1.96 and the p-value is less than 0.05, the path coefficient is considered significant, thereby confirming the hypothesis.

The research model includes a total of seven paths. As shown in Table 11, the absolute values of the T-statistics for the paths related to personal factors, school factors, and social factors in relation to self-marketing abilities all exceed 1.96, with P-values less than 0.001, indicating that these paths are statistically significant. This suggests that personal factors, school factors, and social factors have a significant impact on students' self-marketing abilities. Furthermore, the path linking self-marketing abilities to high-quality employment has a T-value absolute of 5.720, which is also greater than 1.96, with a P-value of 0.000, further indicating statistical significance. This implies that students' self-marketing abilities influence their likelihood of securing high-quality employment. Moreover, the core factors affecting high-quality employment are evident in the data analysis: the T-values for the paths between personal factors, school factors, social factors, and high-quality employment all exceed 1.96, with P-values less than 0.001 or 0.05, indicating that these factors indeed influence students' prospects for high-quality employment.

Table 11. Path coefficients and significance results of the research model.

Path	Path Coefficient	Standard Deviation	T-Value	Notes
Personal Factors -> Self-Marketing	0.332***	0.035	9.550	Significant
Personal Factors -> High-Quality Employment	0.129**	0.041	3.151	Significant
School Factors -> Self-Marketing	0.208***	0.036	5.763	Significant
School Factors -> High-Quality Employment	0.204***	0.041	5.027	Significant
Social Factors -> Self-Marketing	0.305***	0.033	9.207	Significant
Social Factors -> High-Quality Employment	0.187***	0.039	4.805	Significant
Self-Marketing -> High-Quality Employment	0.248***	0.043	5.720	Significant

Notes: ***$p < 0.001$, **$p < 0.01$, and *$p < 0.05$.

5.4. Mediating Effect Test of Self-Marketing

The Mediating Effect Test, also known as an indirect effect, was examined using Smart PLS 4.0. The analysis employed Bootstrapping with 5,000 subsamples to test significance.

As shown in Table 12, the absolute values of T for all three paths exceed 1.96, and the P-values are all below 0.001, indicating that the mediating effects of all three paths are significant.

Table 12. Specific indirect effects.

Path	Specific Indirect Effect	Standard Error	T-Value
Personal Factors -> Self-Marketing -> High-Quality Employment	0.082***	0.017	4.892
School Factors -> Self-Marketing -> High-Quality Employment	0.052***	0.012	4.197
Social Factors -> Self-Marketing -> High-Quality Employment	0.075***	0.016	4.672

Notes: ***$p < 0.001$, **$p < 0.01$, and *$p < 0.05$.

5.5. Robustness Test

To further assess the reliability of the mediating effects in the pathways mentioned above, this study used the SmartPLS 4.0 software to conduct a Bootstrapping test on data from 610 valid questionnaires, setting the resampling size to 5,000 sub-samples for stability testing. If the Bootstrap confidence interval for the indirect effect does not include 0, it indicates that the mediating effect is significant; if it includes 0, the effect is not significant. As shown in Table 13, the 95% confidence intervals for all mediating effect pathways do not include 0, indicating that the mediating effects are significant. This demonstrates that self-marketing plays a mediating role among personal factors, school factors, social factors, and high-quality employment.

Table 13. Analysis of the mediating effect of bootstrap method.

Pathway	Original Sample (O)	Sample Mean (M)	Bias	BootLLCI	BootULCI
Personal Factors -> Self-Marketing -> High-Quality Employment	0.082	0.083	0.001	0.051	0.118
School Factors -> Self-Marketing -> High-Quality Employment	0.052	0.052	0.000	0.030	0.079
Social Factors -> Self-Marketing -> High-Quality Employment	0.075	0.076	0.001	0.046	0.109

6. Conclusion and Recommendations

6.1. Conclusion

This study investigated the factors influencing high-quality employment among university students in Guangdong Province. Building on existing literature, a structural equation model with "Self-Marketing" as a mediating variable was developed. Reliable research data were collected through a questionnaire survey. By employing descriptive statistical analysis, reliability analysis, validity analysis, and structural equation modeling, the study tested the proposed hypotheses. Based on the data analysis and research hypotheses, the following conclusions can be drawn:

1. Personal Factors, School Factors, and Social Factors all have a significant positive impact on high-quality employment among university students in Guangdong Province. Specifically, within graduate job-seeking initiatives, channels for information acquisition, awareness of target companies, the number of resumes submitted, and the focus on employment information all exhibit a significant positive correlation with factors influencing employment quality. The findings suggest that proactive job-seeking leads to better employment outcomes, as proactive job seekers are well-prepared, have clear goals, act independently, and effectively utilize various job-seeking resources.

2. Self-Marketing serves as a mediating factor in the influence of Personal Factors, School Factors, and Social Factors on high-quality employment among university students. Among the secondary indicators of Self-Marketing, graduates' mindset plays a crucial role. Confidence, courage, optimism, and ambition not only have a significant positive impact on the quality of employment but also frequently appear among the key influential indicators. This strongly affirms the vital role of psychological capital in determining employment quality, resonating with the words of the English writer Charles Dickens: "A healthy mindset can rival a hundred kinds of wisdom."

The employment quality of university graduates is crucial to the healthy development of higher education in the new era. With the implementation of university expansion policies, the function of higher education in selecting talent has been diminishing. While it is important for universities to focus on employment rates, if graduates can only secure low-quality jobs, or if their employment quality is inferior to that of those without higher education, public and family confidence in investing in higher education will decline. Poor employment quality among graduates raises concerns about the overall quality of higher education. Therefore, the following recommendations are proposed.

6.2. Recommendations for Development

At the individual level, it is paramount to enhance personal qualities and continuously accumulate knowledge and experience, as all employment assistance is founded on a strong and solid personal foundation. Cultivating a mindset of innovation, integrating this consciousness into thought and practice, and developing innovative thinking are essential. Additionally, consistently expanding professional knowledge, improving cultural literacy, and building the courage to face setbacks are vital. This approach fosters strong innovative thinking, competitive awareness, teamwork, and a strong work ethic, thereby continuously enhancing entrepreneurial qualities. Moreover, developing practical skills through active participation in social practice activities, including holiday internships, professional training, research projects, part-time work, social events, and university innovation programs, is crucial. Purposefully training teamwork, inclusiveness, interpersonal skills, communication, and adaptability should also be a priority.

Furthermore, it is essential to cultivate a proactive mindset toward employment

by developing a strong sense of self-marketing. Recognize your core competitive advantages and consciously highlight these strengths while mitigating weaknesses. By showcasing your key attributes, you enable recruiters to quickly identify your unique qualities. Effectively market yourself by demonstrating the skills, knowledge, and experience you genuinely possess.

At the institutional level, it is crucial to establish dedicated student development guidance centers and professional advisory teams. These should enhance a tiered developmental guidance system that integrates academic, career, and psychological counseling across different academic years. The top-level design should combine universal guidance, specialized instruction, and personalized mentoring, aligning with students' intrinsic needs. Targeted resource allocation should be employed to coordinate the research and implementation of student development initiatives (Zhang & Zhang, 2014: pp. 102-106).

First and foremost, the employment guidance provided to university students should be strengthened. This includes scientifically and reasonably designing innovation and entrepreneurship courses, with an emphasis on practical course development to help students enhance their cognitive abilities. Guidance is crucial during this process, as it helps students establish correct employment concepts. Focusing on skill development and guiding students to accurately assess their own potential will enable them to choose suitable careers. This guidance can also help students avoid blind conformity during job searches and encourage them to pursue entrepreneurship with institutional support. Cultivating a self-marketing mindset is essential to eliminate students' reliance on waiting and to motivate proactive job-seeking behavior. Universities can organize career planning competitions, such as the "Challenge Cup" for employment and entrepreneurship, and establish related clubs to provide students with hands-on experience. By applying theoretical knowledge to real-world scenarios, students can clarify their career plans, better preparing them for precise, high-quality employment after graduation. Promoting learning through competitions, combined with the integration of study and competition, can significantly enhance the technical skills of university students. Skills competitions can shift students from passive to active learning, leading to noticeable improvements in professional abilities and vocational qualities. As a result, graduates' adaptability, professional skills, and core employability are substantially increased.

Secondly, it strengthens the connection and collaboration between schools and external enterprises. By fully leveraging the advantages of educational resources in response to actual market or corporate needs, universities can narrow the gap between students and employers through the establishment of research and training bases or the provision of special scholarships. Additionally, employment guidance, internships, and job assistance for university graduates should be reinforced, along with the creation of a comprehensive support system for students facing employment challenges, helping them secure job opportunities. Enhance the development of employment information platforms, utilizing various channels to

promote the circulation and integration of employment information and resources. Moreover, it improves the capacity for research, forecasting, and regulatory control related to employment and entrepreneurship, providing students with services and support such as situation analysis, policy consultation, and job-seeking guidance.

At the government level, it is essential for the government to effectively fulfill its management and service functions by improving the legal and regulatory framework to protect the rights of workers engaged in new employment forms. Additionally, the government should continuously optimize the employment and entrepreneurship environment. Furthermore, by enacting relevant laws and regulations, the government can better regulate and standardize the actions of the employment consulting industry and businesses, ensuring the healthy development of the industry and enhancing its role in promoting high-quality employment among university graduates.

Government incentives can influence graduates' career direction. For instance, grassroots organizations or more challenging regions can leverage these incentives to attract talent, thereby encouraging graduates to work in community-based roles or to support agriculture and education in remote areas. This approach not only meets the talent needs of grassroots organizations but also enhances and develops graduates' skills, resulting in a win-win situation. For example, initiatives such as "Voluntary Support for the West" and "College Student Village Officials," promoted by the government, provide excellent employment platforms for students, yielding significant social benefits and greatly improving the overall quality of graduate employment.

Founding

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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