# An examination of significant factors influencing college student employment cognition

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#### Abstract

The increasingly severe employment problem of college students has become a public concern in China. The literature review suggested that college students' employment cognition play a major role in this issue. To improve students' employment cognition thus becomes important. The paper argued that the first step in the improvement of students' employment cognition be knowing the key factors that might influence one's employment cognition. Through literature review, this paper identified three key influential factors, i.e., professional training, academic satisfaction, and word-of-mouth. Empirical data were then collected to test their relationships with employment cognition. SEM analysis revealed that these factors were significantly and positively related to employment cognition. These findings provide Chinese educators and potential employers with insights on how to help college graduates broaden their job search scope and match their majors with ideal jobs. In a broad sense, these findings could significantly contribute to the wellbeing of the Chinese society.

**Keywords:** Academic satisfaction; employment cognition; professional training; unemployment.

#### 1. Introduction

With the expansion of colleges and universities in China in the recent years, the number of students who successfully complete their higher education has greatly increased. This is good news for the Chinese society on one way. On the other hand, it has simultaneously brought some "negative issues" to the attention of some educators and researchers.

One of these is high pressure on the newly graduated students since competition for job opportunities seems to have been mounted and many of them struggle to find jobs. The high competition in the job market is argued to also come from the economic situation in China. Reuter (Polland, 2022) revealed that China's economy has been weakened by the Covid-10 Pandemic and the youth unemployment, as of June 2022, is already more than three times China's overall joblessness rate, at a record 18.4%.

Another "negative" observation of the job market is the mismatch between the college student major and actual employment. Anecdotes and news reports show that many graduates have entered professions unrelated to their majors. To seek job security, many graduates aim for or accept governmental positions, regardless of their majors (Polland, 2022).

It looks like that the "golden employment age" for college graduates in China has been over. However, the recent call by President Xi Jinping on the nation's youth to seek out new opportunities in "the west of the country" reveals deeper insights into the "college graduate unemployment" issue (Shan, Zhang, & Hu, 2022). Relevant literature reveals that most college graduates desire for positions in large companies located in cities and governmental agencies, particularly those large cities located in relatively developed east regions. It also casts doubts on Chinese college students' overall employment cognition, which greatly influences college students' career choices (Lent, et al, 2000; Gushue, et al, 2006). Chinese students' employment cognition seems to be low. Studies show that many students are not clear about their future career paths; they do not have their own opinions, but blindly follow the advice of their parents, friends, or strangers (e.g., Glewwe, et al, 2011; Munir, et al. 2022).

This paper supports the Chinese government's viewpoint regarding the "real cause" of "college graduate unemployment" and "job mismatch" issues and argues that improvement of student employment cognition be an effective solution to these issues. To get started, this study aims to investigate key factors that might significantly influence college student employment cognition.

# 2. Conceptual Model

A survey of the relevant literature reveals that college student employment cognition might be influenced by multiple factors, including professional training, academic satisfaction, and word of mouth (WOM), and others. This study focuses on testing and reporting the direct

relationship of student employment cognition (as a dependent variable) and three independent variables, professional training, academic satisfaction, and WOM, as figure 1 shows. Although the authors did investigate the interrelated relationships among the independent variable, this paper only reports the direct relationships as shown in the framework. Figure 1 serves as a guide for literature review and data collection.

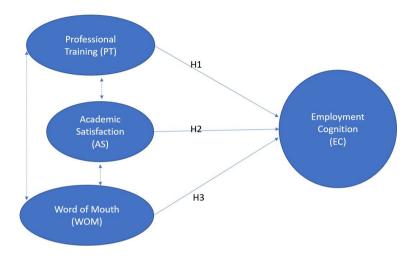


Figure 1. The Proposed Theoretical Conceptual Framework.

#### 2.1. Professional Training and Employment Cognition

College student professional training is found to influence student employment cognition by a number of research studies. For instance, Monteiro, et al. (2020) found that career advice services provided by colleges and universities were positively correlated with student employment cognition. Álvarez-González, et al. (2017) contended that skill development, academic performance, personal environment and contacts, and cognition of the labor market increase students' self-confidence, which is positively reflected in how they perceive their employment cognitive ability. This view is supported by Tymon, et al. (2020). Through a sample of employed and unemployed job seekers, Zikic, et al. (2009) found that people who spent more time exploring careers and participating in more training programs reported higher job search clarity and self-efficacy.

In addition, mentors play an important role in professional training and development. Using a web-based descriptive survey design, Adeniran R.K et al. (2013) detected significant differences in the mentoring role and certain professional development and career advancement measures between colleges and universities, and concluded that mentors are role models, mentoring relationships are important for professional growth, and standardized

professional development structures are needed to facilitate professional growth. Based on the evidence in the literature, the following hypothesis is thus proposed:

H1: Professional training has a positive impact on Chinese college student employment cognition.

# 2.2. Satisfaction of College Students

A number of studies show that students' academic satisfaction seems to has positive effects on student employment cognition. Yun, et al. (2019) surveyed more than 120 Chinese college students and identified significant relationships between academic studies, and student satisfaction and employability. Liu, et al (2021) found that compared students who know their employment status to those who do not know their employment status, the latter have lower academic satisfaction. An empirical study done by So, et al (2014) indicated that student academic satisfaction has positive effects on goal selection, job information and future plan, which is helpful for college students to establish correct employment cognition. Thus, this study proposes the following hypothesis:

H2: College students' satisfaction has an impact on their employment cognition.

# 2.3. Word of Mouth

Huete-Alcocer (2017) found after reviewing relevant literature that word-of-mouth is the oldest medium for sharing opinions on products or services, and it is also the medium most likely to influence consumer behavior because of the high reliability and credibility through family and friends' transmission. Yim, et al. (2010) found that customers' online and offline word-of-mouth had a statistically significant impact on their evaluation of a restaurant's brand equity. Their results also show that customers' evaluation of the three dimensions of brand equity has a significant impact on their return intention, and the online and offline word-of-mouth of stable brand equity for family restaurants. Similar to the situation that consumers face when choosing which products to buy, college graduates are also influenced by the information spread by the surrounding people. College graduates will pay attention to the information passed on by others, analyzed and judge the quality of their employment situation according to the information obtained, and then make their own employment choice. This study thus proposes the following hypothesis:

H3: Word of mouth plays a role in establishing correct employment cognition.

# 3. Methodology

Research publications that systematically investigate the key factors that significantly influence Chinese student employment cognition are very limited. Therefore, this study collects its own data through a survey to test the proposed hypotheses. This questionnaire is

divided into two parts, the first part is the basic characteristics of the respondents, the second part is to measure the variables of the conceptual model, and the variables are measured through questions derived from the literature. The dependent variable of the questionnaire is employment cognition, the independent variable is college students' academic satisfaction, professional training, and WOM. We used a set of 5-point Likert scale to state the questions, with "1" = "strongly disagree" and "5" = "strongly agree".

Before the formal survey, this paper first conducted a pilot study and used Cronbach  $\alpha$  coefficient and factor analysis to test the reliability and validity of the questionnaire structure, which was found to be good. Through principal component analysis, it is found that the individual questions of college students' satisfaction and employment cognition in the rotated component matrix have unclear attribution, so the questionnaire is modified and improved for these questions. In the pilot study, a total of 102 questionnaires were distributed, and 97 valid questionnaires were screened out, with an effective rate of 95.1%. Formal questionnaires were distributed to about 350 college students.

## 3.1. Participants

An online survey was conducted among Chinese college students across the country. The basic information of demographic characteristics included gender, age, education level, type of school, living area,, future employment, and whether they would choose a job in line with their major. The questionnaire was released on April 24, 2022, and closed on August 6.

A total of 358 questionnaires were collected, and the invalid questionnaires such as too short time and illogic were screened out. A total of 307 valid questionnaires were retained, with an effective rate of 85.76%. In this formal survey, 68.70% respondents were female and 31.3% male. Most of the participants were between 18 and 22 years old, accounting for 82.08%.

#### 3.2. Data Analysis Procedure

The data analysis was carried out in four steps, similar to the previous research. First, descriptive statistical analysis was carried out to calculate variable mean value, standard deviation and correlations with the help of SPSS26.0 statistical tool. Second, Reliability and validity test was tested with the help of SPSS26.0 and AMOS23.0 statistical tools. Reliability analysis is measured by Cronbach α. Third, Structural Equation Model (SEM) analysis was conducted. Measurement error control and model fitness test were included to predict the influence of professional training on establishing correct employment cognition. AMOS23.0 statistical tool was used in this part. The was followed a test by using the Bootstrap Method to see if college students' satisfaction has any effect in the process of establishing correct employment cognition. These analyses identified many significant relationships among independent variables, which will be reported in a follow up study.

#### 4. Results

### 4.1. Preliminary Analysis

The absolute values of skewness (<2) and kurtosis (<4) of all observed variables were normal distribution. The mean value, standard deviation and mutual coefficient matrices of the variables are shown in Table 1.

Variables MD SD PТ AS EC WOM PT 3.65 .66 AS 3.92 .57 .568 \* \* EC 4.01 .56 .512 \* \* .602 \* \* 475 \* \* .447 \* \* .568 \* \* WOM 3.70 .57

Table 1. Basic statistics of variables.

Note: PT = professional training; AS = academic satisfaction; EC = employment cognition; WOM = word-of-mouth.

Table 1 shows that the overall employment cognition of Chinese college students is above the average, but not super. Their professional training is only 3.65, the lowest score among all the variables examined. This indicates that word of mouth communication and academic satisfaction do have greater influence on student employment cognition than their professional training. In addition, the results show that all the variables are significantly correlated, which confirmed the literature information.

#### 4.2. SEM Analysis

The identification index of the model (see Table 2) and the identification model were obtained as follows. Table 2 shows that the index fit is very good, indicating that the model has a high fitting degree. The path coefficients of the structural equation model are shown in Table 3.

It is inferred that professional training significantly but weakly influences employment cognition (r=0.187, P< 0.05); academic satisfaction significantly and strongly influences employment cognition (r=0.598, p<0.000). The significant and strong relationship between professional training and academic satisfaction is apparent (r=0.658, p<0.00). This is Further identified by Bootstrap method with 5000 sampling times, the results are shown in Table 4.

Since the direct effect of professional training on the establishment of correct employment cognition is relatively small, but the total effects are big, it seems to indicate that college students' satisfaction has mediating effect between PT and EC. Hierarchical moderated regression was used to verify whether word of mouth plays a role in establishing correct

employment cognition. The results confirmed that WOM has significant and positive influence over Employment Cognition.

Table 2. Goodness-of-fit indices summary of the SEM.

| Fit Indices | Baseline            | Estimated value |
|-------------|---------------------|-----------------|
| $\chi^2/df$ | < 3.00              | 1.712           |
| GFI         | > 0.90 (good)       | 0.933           |
|             | > 0.80 (reasonable) |                 |
| AGFI        | > 0.90 (good)       | 0.909           |
|             | > 0.80 (reasonable) |                 |
| RMSEA       | < 0.1 (reasonable)  | 0.048           |
|             | 0.05 or less (good) |                 |
| RMR         | < 0.05 (good)       | 0.022           |
|             | < 0.1 (reasonable)  |                 |
| NFI         | > 0.90              | 0.935           |
| TLI         | > 0.90              | 0.966           |
| CFI         | > 0.90              | 0.972           |
| PNFI        | > 0.50              | 0.787           |
| PGFI        | > 0.50              | 0.693           |

Table 3. The path coefficient values of the SEM.

|       | Unstandardized path | Standardized path |       |       |       |
|-------|---------------------|-------------------|-------|-------|-------|
| Path  | coefficients        | coefficients      | S.E.  | CR.   | P     |
| PT→AS | 0.638               | 0.658             | 0.071 | 9.027 | * * * |
| PT→EC | 0.165               | 0.187             | 0.067 | 2.458 | 0.014 |
| AS→EC | 0.546               | 0.598             | 0.082 | 6.633 | * * * |

Table 4. Total effects.

|                   | effects          | Point<br>estimation | Bootstrapping      |       |                |       |
|-------------------|------------------|---------------------|--------------------|-------|----------------|-------|
| Model<br>Pathways |                  |                     | Bias-corrected 95% |       | Percentile 95% |       |
|                   |                  |                     | Lower              | Upper | Lower          | Upper |
|                   | Total effects    | 0.514               | 0.346              | 0.696 | 0.352          | 0.704 |
| PT→EC             | Direct effects   | 0.165               | 0.020              | 0.322 | 0.021          | 0.323 |
|                   | Indirect effects | 0.349               | 0.201              | 0.536 | 0.201          | 0.536 |

Table 5. Effects of WOM.

| Model | Variables | Unstandardized coefficients |      | standardized<br>coefficients | T      | SIG. |
|-------|-----------|-----------------------------|------|------------------------------|--------|------|
|       |           | В                           | S.E. | Beta.                        |        |      |
| 1     | Constant  | .981                        | .185 |                              | 5.313  | .000 |
|       | AS        | .367                        | .046 | .374                         | 8.036  | .000 |
|       | WOM       | .427                        | .046 | .434                         | 9.337  | .000 |
| 2     | Constant  | .937                        | .182 |                              | 5.154  | .000 |
|       | AS        | .374                        | .045 | .382                         | 8.338  | .000 |
|       | WOM       | .438                        | .045 | .445                         | 9.721  | .000 |
|       | AS*WOM    | 185                         | .054 | 142                          | -3.452 | .000 |

This test reveals that word of mouth significantly influence one's employment cognition as r=0.343, p<0.000. At the same time, it significantly but negatively interacts with academic performance, indicating that the higher of a student's academic satisfaction, the less likely the student uses "word of mouth" as a career information source.

# 5. Conclusions

The key findings of this study are that each one of the independent variables, i.e., professional training, academic satisfaction, and word-of-mouth, has a significant and positive effect on college students' correct employment cognition. However, academic satisfaction has the

strongest impact on employment cognition, followed by word-of-mouth. It is interesting to see that the independent variables are significantly correlated with each other. For instance, word-of-mouth mediates the relationship between academic satisfaction and employment cognition negatively, indicating students with higher academic satisfaction are less likely to turn to word-of-mouth for career information. These findings provide the Chinese educators and potential employers with insights on how to help college graduates broaden their job search scope and match their majors with ideal jobs. Colleges and universities should strengthen professional training, improve student academic satisfaction, and effectively manage word-of-mouth channels. This study has two major limitations. One is the nature of an online survey, which might automatically filter out those college students who do not go online often. Another is that only three independent variables were tested and direct relationship were reported in this study. The immediate future study of this research is to identify more independent variables and examine how they are correlated with each other or if any mediating relationships exist between them.

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