# Analysis on the Choice Behavior for Graduation Whereabouts of University Student---Based on SEM

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**Keywords:** University Student; Graduation Whereabouts; Choice Behavior; SEM(Structural Equation Model).

**Abstract.** University student is an important part of social labor force in the future and their choice behaviors after graduation are the focus of common concern from all circles of society. The authors of this paper have investigated a mass of universities and colleges in Jiangxi province and made a SEM (Structural and Equation Model) to analyze the questionnaires. Through the analysis, the authors have worked out a path-road which can explicate how university students make the choice behavior for graduation whereabouts. Finally, the authors give out suggestions on education department, entrepreneur support and employment support from government.

#### Introduction

Employment, entrepreneurship and further study are the problems each university student will face, so the choice behaviors of university students determine the direction of their future development. Proper choice can make the university student avoid detours and achieve rapid success. If the choice behavior is not made properly, it will influence the university student's values of life. Wang Xilian(2001)[1] and Deng Shanshan (2004)[2] deem that blindness have made the postgraduate examination hot. In terms of employment, Yang Hongbing(2012)[3] considers that the university students need the spirit of bearing hardships. In terms of the university students themselves, Li Zaoshui and Li Guanghua (2012)[4] consider that they should enhance their abilities in many ways, such as strengthening professional technology, adjustment, self-exhibition, communication, collaboration and innovation. Xiao Han (2011)[5] believes that the specialized level of the employment guidance personnel in colleges and universities should be enhanced in order to provide better whole process employment guidance service for the students. Fang Zhou (2012)[6] argues that all these factors like students' abilities, traditional concepts, high financial costs, the imperfect financial services and the small scale of the enterprises they build lead to the difficulties of the university students' entrepreneurship. After looking into some literatures, the author discovered that there were few literatures on applying the structural equation model to study this problem and on comprehensively analyzing the choice behavior for graduation whereabouts of the university students. As a result, the research in the choice behavior for graduation whereabouts of the university students by means of structural equation model has both good academic value and application value.

The authors of this paper are through distribution of questionnaire, interview, questionnaire mail, and investigate a part of colleges and universities, such as Nanchang University, Jiangxi University of Finance and Economics, East China University of science and Technology, and Nanchang Hangkong University. We classify the factors influencing graduates' intention into personal information, environmental factor, individual endeavor and support factor and use the software of SPSS19.0 do the Cronbach's Alpha reliability test. Then, we use the software of amos17.0 to establish SEM through the process of modeling, calculating, model modifying, recalculating, model re-modifying. Finally we get the influencing path about the four factors above, analyze it in details and put out betterment countermeasures and suggestions.

## A brief description of the principle of the structural equation model

Structural equation model is a multivariable test model which not only takes the internal structure

of factors into consideration but also focus on the causality between the factors. It contains potentially immeasurable variables and belongs to test -modification model and is widely applied in the fields of society, economy and management. The model is as follows:

$$X = \Lambda_x \xi + \delta \tag{1}$$

$$Y = \Lambda_{y} \eta + \varepsilon \tag{2}$$

$$\eta = B\eta + \Gamma \xi + \zeta \tag{3}$$

In the above equations, (1) and (2) are the measurement models and are also called the confirmatory factor analysis models.  $\Lambda_x$ ,  $\Lambda_y$ , which are also called loading matrix, are factor loadings;  $\eta$  is an endogenous variable and  $\xi$  is an exogenous variable. There is neither covariant relationship nor causal path between the variables  $\delta$  and the residual errors  $\varepsilon$  and equation (3), which is also called potential variable causal analysis model, is the structural model.

## Sources of the data and analysis of the survey results

By group discussion and brain storming, this group lists the influencing factors as many as possible and designs the questions according to them to form a questionnaire.1000 questionnaires were distributed and 830 of them were successfully returned. The recovery rate reaches 83% and the effective rate 73.7%.

## The index system and model establishment

The index system is presented as table 1:

Table 1 The index system of factors influencing the college graduates' selection

Latent Variables	Observed Variables	Symbols	Corresponding Variance Symbol
	Gender	V1	e1
	Subordinate Counties and Cities	Gender V1 te Counties and Cities V2 nthly Expense V6 tes and Specialties V23 teration on the Cost of tttt Entrepreneurship V7 terther Studies V23 teration on the Cost of tttt Entrepreneurship V7 terther Studies V23 teration on the Cost of tttt Entrepreneurship V7 terther Studies V23 teration on the Cost of tttt Entrepreneurship V7 terther Studies V23 teration on the Cost of tttt Entrepreneurship V7 terther Studies V35 Selection Influenced V34 tereople Around V35 tereople Around V36 tereople Around V37 tereople tereople Around V38 tereople Around V39 tereople Around	e2
	Monthly Expense	V6	e6
Personal	Abilities and Specialties	V23	e3
Information $\xi_1$	the Consideration on the Cost of Employment, Entrepreneurship, Further Studies	V7	e7
Personal	Expected Income	V13	e13
	Opportunity Cost	V35	e35
	Degree of Selection Influenced by People Around	V34	e34
	View of Returnee	V18	e18
	View of Self- entrepreneurship	V19	e19
	Cognition of Entrepreneurship difficulty	V22	e22
Environmental Factor $\xi_2$ View of Self- entrepreneurship  Cognition of Entrepreneurship difficulty  Disadvantage Factors on Employment  Restraining Factors	V29	e29	
	Restraining Factors	V28	e28
	Academic Record	V10	e10
	Holiday Activity Degree	V25	e25
Endeavor $\xi_3$	Employment Activity in School		e26
	Length of Employment Time	V12	e12
Support Factor	Entrepreneurship Support Degree	V36	e36
	Employment Guidance and Support		e37
<b>'</b> / <sub>1</sub>	Help on Further Studies	V38	e38
	the Choice of Employment Entrepreneurship Further Studies	V32	e32
20100001172	Places Choice	V33	e33

Note: \*The symbols of the index system are designed according to the questionnaires.

### **Empirical analysis**

Table 2 is the estimation of variables:

Table 2 The estimation of model to each variable

		ii of filoder to each variable		
	Late	ent Variables		
Personal Information	Environmental Factor	Individual Endeavor	Support Factor	
2.202**	0.208*	0.355*	0.026	
	Obser	rved Variables		
V1	V2	V6	V7	
1	-7.929**	3.897***	-2.41**	
V10	V12	V13	V18	
1.045	1	1.273*	0.14	
V19	V22	V23	V25	
-0.816*	0688*	-0.041	16.702	
V26	V28	V29	V32	
6.065	-6.714***	-4.968***	1	
V33	V34	V35	V36	
1.003*	1	3.01*	1	
V37	V38			
1.349***	1.288***			
	С	orrelation		
Personal Information ~	-→Individual Endeavor	Environmental Factor←→Individual Endeavor		
-0.	016	0.546*		
-0.	016	0.546*		

Note: \*means the estimation of parameter is significant under 10% level, \*\* is significant under 5% level, \*\*\* is significant under 1% level.

From Fig.1 and Table 3, college graduates' choice is comparably rational. In general, college graduates' choice is mainly according to their actual situation and abilities and also they would take some environment factors into consideration, such as the difficult degree of employment situation and postgraduate entrance exams and so on. The factor (such as individual endeavor) that is devoted to certain selection at school has great influence on college graduates' choice, but the influence is smaller than the personal information (direct effect is 2.202). Finally, supporting factor (direct effect is 0.026) is not significant at the level of 10%. The possible reason may be the large number of students and the government and school only aid those brilliant graduates of the students. But others have little understanding on support subsidy. In addition, environment factor, such as employment situation, entrepreneurship condition, is significantly related with individual endeavor. This shows environmental factor would change graduates' activities at school and then influence final selection.

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