

Influencing Factors of Employment Competitiveness in Relation to the Effects on Compensation of Higher Vocational Graduates Serving Regional Rail Transit Sectors

Wei Wen, Norita E. Manly

Adamson University, Manila, Philippines

Abstract: Studying can offer certain benefits for future careers. However, when applying for jobs that require a rail transit background, applicants often find themselves competing with others who have similar educational backgrounds. In such cases, it is a person's employability, including skills, abilities, and personal qualities, that can make them stand out. This research investigated the factors influencing employment competitiveness and their impact on the compensation of higher vocational graduates in the regional rail transit sector. Data was collected from 310 graduate respondents using a highly reliable and validated questionnaire, employing comparative-correlational methods. The study found that factors such as professional cognition, occupational planning, work experience, hobbies and interests, working attitude and abilities, educational background and professional setting, professional learning practical ability, and student cadre experience all play a role in determining employment competitiveness. Additionally, the personal profiles of the respondents were significant in their evaluations of employment competitiveness. Similarly, compensation factors for rail transit higher vocational graduates, including salary and benefit negotiation, taking on additional responsibilities, developing new skills and qualifications, and advocating for fair compensation practices, also have a significant impact on employment competitiveness. A strong correlation was observed between employment competitiveness factors and compensation effect domains, indicating a positive and significant relationship. These findings serve as a basis for developing career programs in schools to ensure the immediate employment prospects of rail transit graduates.

Keywords: Employment Competitiveness; Compensation Domains; Rail Transit Sector.

1. Introduction

In China, the number of vocational school graduates in 2023 reached an all-time high, leading to increased employment pressure for these graduates. Consequently, various regions and departments have firmly shouldered the responsibility of stabilizing employment and made every effort to expand job opportunities. At this time, educators should adhere to the principle of ensuring students' successful employment.

In recent years, the employment rates of secondary and higher vocational graduates have exceeded 95% and 90% respectively. Currently, there are over 10,000 vocational schools and colleges in China with more than 30 million enrolled students. The scale of vocational education accounts for half of China's higher education, representing a huge talent pool. All regions and departments shall uphold employment priority policies, enhance employment stabilization measures, and focus on key groups such as college graduates. General Secretary Xi Jinping has emphasized that employment is the most important livelihood project and an important guarantee for social stability. Therefore, addressing employment issues and promoting stability has always been a major task for economic and social development.

In 2024, more than 1.17 million graduates face employment challenges. It is crucial for them to enhance their qualifications to find ideal jobs. Solving employment difficulties is important not only for graduating students but also for those currently enrolled. For employed individuals, it is essential to discuss the factors influencing employment

competitiveness to equip current students with necessary generic and professional skills and moral qualities. Based on this, the researcher finds it meaningful and urgent to conduct a study on the employment competitiveness factors of vocational school graduates committed to serving regional rail transit development at Guangzhou Railway Polytechnic in the post-pandemic era, aiming to explore the influencing factor categories for vocational students' employment and improve their comprehensiveness.

2. Theoretical Framework

The influence of human capital on laborer's income has always been one of the important research contents in the field of labor economics. In the process of the formation of human capital theory, "ability" has always been the core concept of human capital theory. The income level of workers depends on the production capacity of workers themselves, and human capital is the production capacity of workers. From the perspective of human capital investment, Theodore Schultz, the "father of human capital theory"(2010) summarizes the investment behavior affecting individual human capital level into education, training, health care and migration.

Modern human capital theory attaches great importance to education and emphasizes the important role of education in individual and social development. In the empirical research, most scholars choose to directly use the length of education as a synonym for human capital. The subtext of this is to equate education with "ability", and the education level can reflect a person's "ability". In the case of limited data and measurement means, this narrow perspective of human

capital is a wise strategy (Li&Zeng, 2012), but with the rise of signaling theory and the improvement of large sample micro data, the modern human capital theory with education as the core is facing new challenges.

According to the signal transmission theory, education is only a signal to the labor market that reflects the ability of workers, and education does not represent the ability of workers. In addition, the traditional human resource theory also faces difficulties in the micro empirical research: economists using the classic equation to the study of human capital income effect found that the empirical results have a lot of residual unexplained, and in the area, family (Solon, 1992) and even appearance, figure (Hamermash, 1994) and other variables, still nearly two-thirds of the income difference cannot be explained. This causes scholars to reflect on the traditional human capital theory, and the estimation method with education as the core is likely to have the omission of ability. In fact, some scholars have realized that "ability" factors such as IQ, responsibility, and ambition will have an impact on the income of workers, but due to the detection means at that time, such research has not been deeply developed.

With the continuous development of modern psychological science, the detection means of workers' ability are becoming increasingly mature. The income effect of workers' ability has been paid more attention to and studied by more and more scholars. At the end of the 20th century, scholars first paid attention to the income effect of workers' cognitive ability (such as intelligence quotient, memory, etc.). Many empirical studies show that cognitive ability is an important determinant of the income level of workers, and it has mutual influence with education and health in the traditional human capital theory. At the beginning of the 21st century, scholars began to study the non-cognitive abilities such as self-esteem, self-ambition and innovation. Nobel Prize winner James Heckman was one of the first scholars to include non-cognitive ability in economic research. He tracked the development of GED candidates in the United States and found similar levels of cognitive ability in the situation.

Under this research paradigm, factors that seem to be influencing employment competitiveness of the students are classified into 2 categories, namely internal and external categories. In terms of human capital, there are self-influencing factors, so it is characterized as internal categories. For internal categories, personal ability, highest education level, student cadre experience, internship experience and other personal factors are discussed to clarify the linkage among them and graduates' employment competitiveness. On the other hand, national policy, family backgrounds, job locations and other factors are viewed as external categories.

With the help of the theoretical point of view of the influencing factors of college graduates' employment competitiveness, it is easily to assume that the influencing factors do not exist in isolation but are in complex interactions with each other. Therefore, influencing factors of employment competitiveness of graduates serving regional rail transit development in higher vocational school with rail transit characteristics in Guangzhou Railway Polytechnic cannot be explained by a single model or theory. The diversity of influencing factors determines the diversity of college students in the process of career exploration.

3. Statement of the Problem

The fundamental objective of this research is to determine

the influencing factors of employment competitiveness of vocational school graduates serving regional rail transit development after graduation under post-pandemic era with regards to the effect of compensation attributes, with the end view of covering variants such as sexes, educational backgrounds, majors, experience related to attending professional skill contests or vocational qualifications, experience related to internship or community or union work, career planning, the matching between major and occupation, work and interest relations, frequencies of switching jobs, etc. The ultimate goal is to compare the relation and relevance among employment competitiveness factors and the effect on compensation.

Specifically, it answered the following problems:

1. What is the profile of the student -respondents in terms of their;
 - A. personal profile
 - 1.1 sex
 - 1.2 age
 - 1.3 year graduated
 - 1.4 scope of unit
 - 1.5 nature of work unit
 - 1.6 highest level of education
 - 1.7 household registration
 - B. Work profile
 - 1.8 employment status
 - 1.9 Requirement for skill at work
 - 1.10 Award received
 - 1.11 Number of occupation related skills
 - 1.12 Work experience
 - 1.13 Number of work changes
 - 1.14 Current salary range
2. What is the assessment of the respondents on the factors that influence employment competitiveness among vocational school graduates in terms of:
 - 2.1 Professional cognition,
 - 2.2 Occupational planning factor,
 - 2.3 Work factor
 - 2.4 Hobbies and interest
 - 2.5 Working attitude and abilities,
 - 2.6 Educational background and professional setting
 - 2.7 Professional learning practical ability,
 - 2.8 student cadre experience
3. Is there a significant difference in the assessment of the respondents on the factors that influence employment competitiveness among vocational school graduates when their personal profile is taken as a test factor?
4. What is the assessment on the influence of compensation of vocational school graduates in based on their:
 - 4.1 Negotiate of salary and benefits
 - 4.2 Additional responsibilities
 - 4.3 Develop new skills and qualification
 - 4.4 Advocacy for fair compensation practices
5. Is there a significant difference in the assessment of the respondents on the characteristic attributes among vocational school graduates when their work profile was taken as test factor?
6. Is there a significant relationship between respondents' assessment on the factors of employment competitiveness and impact attributes compensation of vocational school graduates?
7. Based on the findings of the study, what career program maybe proposed to increase employment opportunities among graduates?

4. Hypotheses

Based on the above discussion, this study answered the following hypotheses at 5% level of significance:

Ho1: There is no significant difference in the assessment of the respondents on the factors that influence employment competitiveness among vocational school graduates when their personal profile is taken as a test factor.

Ho2: There is no significant difference in the assessment of the respondents on the effects of compensation among vocational school graduates when their work profile was taken as test factor

Ho3: There is no significant relationship between respondents' assessment on the factors of employment competitiveness and effect attributes of compensation of vocational school graduates.

5. Significance of the Study

The research holds significant importance as it seeks to probe into the influencing factors on employment competitiveness of vocational school graduates whose jobs are rail-transit-related, serving the regional development of Rail Transit Sector under post-pandemic era, taking Guangzhou Railway Polytechnic as example.

Graduates of Rail Transit Sector. It helps to enhancing Professional Construction and Development of Majors. Those who graduated and started their career in rail transit sectors are from different majors. Therefore, whether graduates have enough employment competitiveness exert great influence on the construction of such major. It is conducive in helping professional development of majors set by the school and different departments of the school.

Employment Sector. It helps to promoting Employment Education System. Employment is the basis of people's livelihood. And clarifying the influencing factors affecting the employment competitiveness can help us to check and make up for the deficiencies in the education of ideology and morality, culture and knowledge, and social practice, so as to effectively fulfill the responsibilities of employment education in the vocational school,

School Administrators. It will help schools build up a brand-new vocational school employment education system under new era with clear objectives, improved contents, sound standards, scientific operation, strong guarantee for employment and remarkable results.

Railway Transit Sector. It is conducive to Talent Training Reform. The establishment and development of subjects and majors should align with the requirements of the enterprises and society. It would provide insights on how to reform talent training with a combination of academic needs and enterprises' requirements, so that the talents are co-cultivate by both schools and social enterprises.

Future Researcher. The result of the study will influence researchers in determining future influencing factors that determines the hiring, the promotion of position and salary and other circumstances that can reflect graduates' employment competitiveness. Therefore, conducting research on the influencing factors of the employment competitiveness of graduates serving regional rail transit development is conducive to better analyze the core skills required by enterprises, and then placed in all aspects of talent training in school education.

6. Scope and Delimitation of Study

This current research specifically focuses on evaluating the influencing factors on employment competitiveness of vocational school Graduates serving regional rail transit development by taking Guangzhou Railway Polytechnic as the sole source of investigation. As a result, the findings might not be comprehensive enough to cover all conditions among other educational counterparts.

The research includes a proportionate number of graduated students who graduated from before school year 2000 to school year 2023, and selected number of currently-enrolled students to cover a large-scale of graduated students. Their profile variables involve the personal and work profile. The profile variables of the student that includes their sex, age, highest level of education, years graduated, scope of unit, nature of work unit, household registration. For work profile; indicated profile included; employment status, requirement for skill at work, award received, number of occupation related skills, work experience, number of work changes, and current salary range.

This study focused on respondents' assessment of factors that influence employment competitiveness that are delimited to the following sub-variables; professional cognition, occupational planning factor, work factor, hobbies and interest, working attitude and abilities, educational background and professional setting, professional learning practical ability, student cadre experience. On the other hand, impact of compensation on vocational students/ graduates was delimited to; negotiate of salary and benefits, additional responsibilities, develop new skills and qualification, advocacy for fair compensation practices. Hence, it is delimited solely to show how the respondents found the research locale academic institution assess their respective current concerns of the study. It only covers the specified number of student-respondents which the researcher deemed enough to represent the supposed population. The variables are delimited to how the respondents have manifested themselves as they have reflected their perceptions on the factors influencing employment competitiveness and its impact on compensation. The limitation of study considered the dimension of the honest assessment among respondents on the influencing factors of employment competitiveness and impact of compensation among vocational graduates of railway transit in Guangzhou, and the degree of consideration of other variables and factors may not be sufficient. However, the overall personal and work profile, which is made up of many factors, can be considered in future studies to broaden the scope of the study, increase the variables studied or increase the groups researched to enhance the scientific and rational nature of the research work. This study started out in the second semester of school year February - August 2024.

References

- [1] Chen, T. Z. (2014). Survey on Initial Employment of Undergraduate Graduates and Analysis of Salary Differences-Taking a Sea-Related University as an Example. *Marketing Weekly* (6), 4.
- [2] Chen, J.(2024). Construction of Career Planning and Employment Guidance System for College Students. *Applied Mathematics and Nonlinear Sciences*, 9(1).
- [3] Lai, R.H., Liu, Q., Luo, H., & Gao, T. (2017). Research on the analysis and enhancement countermeasures of employment

- ability of economics and management college students based on improved career edge model. *Science and Technology Entrepreneurship Monthly*, 30(6), 3.
- [4] Li, Hong-Qu, Tao, Ji-Dong, & Shi, J.-H. (2023). Evaluation index system of employment quality of graduates in higher vocational colleges and universities: existing problems and optimisation path. *China College Student Employment* (2), 13.
- [5] Li, L., & Zhang, S. K.. (2008). Factors affecting college students' career choices: A dual examination based on social capital and human capital. *Journal of Society*, 28(2), 162-162.
- [6] Liu, Z., Cheng, Y. (2023). Research on the average salary model of college graduates based on the fusion of sample data. *Journal of Civil Aviation Flight School of China*, 34(3), 44-48.
- [7] Men, Y. (2022). An analysis of the employability of "newly unemployed" college students in western China from the perspective of career-edge theory. *China College Student Employment* (7), 7.
- [8] Mo, Q., & Liao, X. (2023). Influencing Factors and Intervention Strategies on Employment Stability of Vocational Graduates at the Beginning of Their Career: Take Wenzhou Polytechnic as an Example. *International Journal of Education and Humanities*, 8(2), 56-60.
- [9] Mo, Q., & Liao, X. (2023). Survey and Analysis of Employment Intention of Higher Vocational Graduates and Study on Employment Countermeasures: Based on the employment intention survey results of graduates of Wenzhou Polytechnic from 2020 to 2023. *Journal of Innovation and Development*, 2(3), 84-88.
- [10] Tan, H., Jun Z., & He, J. H.. (2022) A new species of the genus *Pseudourostyla* (Hymenoptera, Braconidae) from China.. Analysis on Career Guidance Mode of Application-Oriented University from the Perspective of Big Data. *Social Science Theory and Practice*, 4(2), 13-25.
- [11] Tian, X., & Peng, X. (2023). How the teaching quality of higher vocational colleges and universities affects the employment quality of graduates - Based on the survey data of Chengdu-Chongqing region's twin-city economic circle. *Journal of Southwest University: Social Science Edition*, 49(2), 172-184.
- [12] Wang, P., Liao, W., Zhao, Z., & Miu, F. (2022). Prediction of Factors Influencing the Starting Salary of College Graduates Based on Machine Learning. *Wireless Communications and Mobile Computing*, 2022.
- [13] Xu, Y. (2019). Empirical analysis of employment intention of graduates of higher vocational colleges and universities. *Journal of Taiyuan City Vocational and Technical College* (9), 4.
- [14] Xu C. (2016). Survey and analysis of the Employability of college students in private colleges and universities - a study based on the CAREER EDGE model. *Journal of College Counsellors*, 8(4), 5.
- [15] Yang Z. D.. (2018). An empirical study on the correlation between vocational identity and employment of higher vocational graduates - A questionnaire survey based on 712 graduates from eight higher vocational colleges and universities in Sichuan Province. *China College Student Employment* (13), 6.
- [16] Wang, Y. (2019). Thinking and Practice of Full and High Quality Employment in Higher Vocational Colleges and Universities--Taking Guangzhou College of Foreign Economic and Vocational Technology as an Example.
- [17] Yun S.H. (2016). Status and Prospect of Research on Regional Flow of College Students' Employment. *Research on Technical Economy and Management* (3), 5.
- [18] Zhang, Y.J., Peng, C. (2020). Analysis of factors influencing graduates' initial employment salary based on structural equation modelling. *Journal of Luohe Vocational and Technical College*, 19(4), 5.