

Received: May 2023 Accepted: June 2023

DOI: <https://doi.org/10.58262/ks.v11i2.379>

Factors Influencing Employment Opportunities After Vocational Training for Rural Workers in Can Tho City

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Abstract

The study examines factors influencing the employment opportunities of rural laborers after vocational training in Can Tho City. Employing a Binary Logistic regression model, data was collected from 210 rural laborers in Can Tho city, considering factors such as state support for capital, field of study, educational level, the linkage between training institutions and labor employers, information about the labor market, cultivated land, age, the number of dependents. The results indicate that state support for capital, field of study, the linkage between training institutions and labor employers positively affects the likelihood of finding employment aligned with the trained profession for rural laborers. Conversely, age, the number of dependents make it challenging for rural laborers to secure jobs corresponding to their training. Based on the significant variables, the study suggests several policy implications to address employment challenges for rural laborers. This includes targeted interventions to enhance vocational training frequency, especially for older individuals or those supporting larger families, thereby improving their prospects in finding employment relevant to their acquired skills.

Keywords: *Employment, Vocational Training, Rural Labor.*

Introduction

Labor employment and its resolution are of particular concern to countries worldwide. In the case of Vietnam, addressing employment is one of the crucial policies of the state, as it not only impacts economic and social development but also influences the livelihoods of the population. Furthermore, resolving employment is essential for addressing urgent societal issues and efficiently utilizing the labor force, contributing to the rapid industrialization, modernization, and international economic integration of the country. In Vietnam, during the period from 2020 to 2022, the private economy has seen rapid growth in quantity, gradually improving business efficiency, addressing employment, and making an increasingly significant contribution to the GDP. However, to meet the demand for workforce development, the current employment situation in Vietnam still faces several challenges, falling short of requirements for development during the process of international integration. As the central city in the Mekong Delta, Can Tho has made remarkable progress and achieved noteworthy success. The labor force within the working age population in Can Tho is substantial, considered an advantage in terms of human resources. If properly utilized and well-trained, it can contribute to increasing labor productivity and economic development in key economic areas. The 2022 provincial competitiveness index ranking shows an increase of 0.28 points in the labor training index for Can Tho compared to 2021. Although there is improvement, the structure of vocational training in the city does not fully meet the development

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requirements of key economic sectors and labor export, primarily focusing on professions serving agriculture and industry, with less emphasis on the service sector.

Due to the lower professional qualifications and predominantly manual labor, the wages of the workforce are relatively low. Additionally, the quality of vocational education still faces limitations despite attention to infrastructure, which is not yet complete. The advisory and job introduction services for students in vocational education institutions are not diverse, regular, and lack sufficient information about recruitment needs. Off-profession employment among trained workers remains prevalent. Given the mentioned challenges, this research is conducted to identify root causes and propose feasible solutions relevant to the local context.

Literature Review and Research Model

Theoretical Foundation

Unemployment

According to the International Labour Organization (ILO), unemployment is a condition that exists when some individuals of working age want to work but cannot find employment at prevailing wage rates.

Therefore, unemployed individuals are those within the working age range who possess the capability to work, yet during the survey week, are without employment, actively seeking work, and registered as job seekers as per regulations.

Unemployment is a concept that encompasses both economic and social dimensions, representing the opposite of being employed. Discussing unemployment entails addressing challenges in formulating national policies. However, in reality, maintaining a reasonable unemployment rate is conducive to economic development. Hence, it is crucial to keep the unemployment rate at a level that aligns reasonably with the socio-economic development of the country.

Effectiveness of Vocational Training

From an educational perspective, the efficacy of vocational training is evaluated based on the attainment of the set training objectives for the respective training programs. It is the outcome of a reflective training process that encompasses qualities, personal values, and the labor value or professional competence of graduates in line with the goals of specific training programs. In this study, the effectiveness of vocational training is assessed using the evaluation criteria established by the International Labour Organization, referred to as ILO 500 (2011) standards. According to these standards, the effectiveness of vocational training depends on various factors and conditions, with policies, training programs, teaching staff, workshops, and teaching equipment, as well as the learners, being the most crucial elements. Addressing these factors is essential to ensure the effectiveness and quality of vocational training.

Labor Supply Theory

In the study on the role of the labor market by Barnum and Squire (1979), it is also acknowledged that an important aspect of the research involves analyzing the determinants of agricultural labor supply and the variations in factors influencing demand through the labor market, impacting income distribution. The wage rate plays a balancing role between labor demand and supply, with the availability of human resources determined in the labor market. Barnum and Squire focus on evaluating the theoretical significance of incorporating household behavior models and examining the labor supply role of rural labor. Thus, a general model of household behavior, based on the analysis of non-agricultural commodity by Hymer and Resnick, is developed, allowing for participation in the labor market.

Labor Demand Theory

Labor Demand Theory by Hicks (1963) posits that the unique nature of wage determination arises from the interaction of both labor supply and demand in the labor market. Unlike conventional commodity value theories, labor demand is distinct due to its role as a production factor. The bidirectional nature of labor, influenced by the available labor force and efficiency, can lead to confusion.

Hicks introduces the concept of elasticity of substitution between capital and labor, explaining that variations in individual labor supply can result from changes in labor conditions, conscious reactions to wage level changes, or unconscious responses based on the worker's overall situation.

In examining the labor market in equilibrium, Hicks highlights the significance of the elasticity of labor demand in relation to factors like substitutability, product demand elasticity, and the elasticity of supply for other labor or factors.

Overall, labor demand theory provides insights into wage determination, considering the interplay between supply and demand in the labor market and the elasticity of substitution between capital and labor.

Hypothesis and Research Model

Theoretical perspectives such as the demand-oriented approach (Keynes), the dual-sector model, the theory of employment creation through labor transfer between two regions of the economy, and the theory of employment creation through labor migration all assert that fundamental factors influence employment and job creation. These factors include the legal policy framework for the functioning of the labor market, state support, the scale and quality of the workforce, and the connection between labor supply and demand in the labor market. The basic factors influencing rural employment after vocational training are also not exceptions, with the role of supportive policies being particularly crucial, both in strategic development direction and in facilitating effective labor supply-demand connections.

In this study, based on theories of employment creation and inheriting results from previous research projects on job creation, the author proposes a research model comprising seven independent variables (X_i) influencing the dependent variable (Y), which is Employment Opportunities for trained labor in Can Tho City. Specifically, these variables include:

Factors related to vocational training: Field of study, the linkage between training institutions and labor employers.

Individual factors of the labor force: Age, Educational level, Number of dependents in the family, Cultivated land.

Supportive policy factors: State support for capital, Information on the labor market.

The dependent variable Y measures employment opportunities for trained labor in the area and is assessed with two values: 1 = employed in the trained field after training, and 0 = unemployed or employed in a different field.

Based on theoretical foundations, the authors proposes the following research hypotheses:

Hypothesis H1: *The field of study has a positive impact on the employment opportunities of labor.*

Hypothesis H2: *The linkage between training institutions and labor employers has a positive impact on the employment opportunities of labor.*

Hypothesis H3: *The age of labor has a negative impact on employment opportunities.*

Hypothesis H4: *The educational level of labor has a positive impact on employment opportunities.*

Hypothesis H5: *The number of dependents in the family has a negative impact on employment opportunities.*

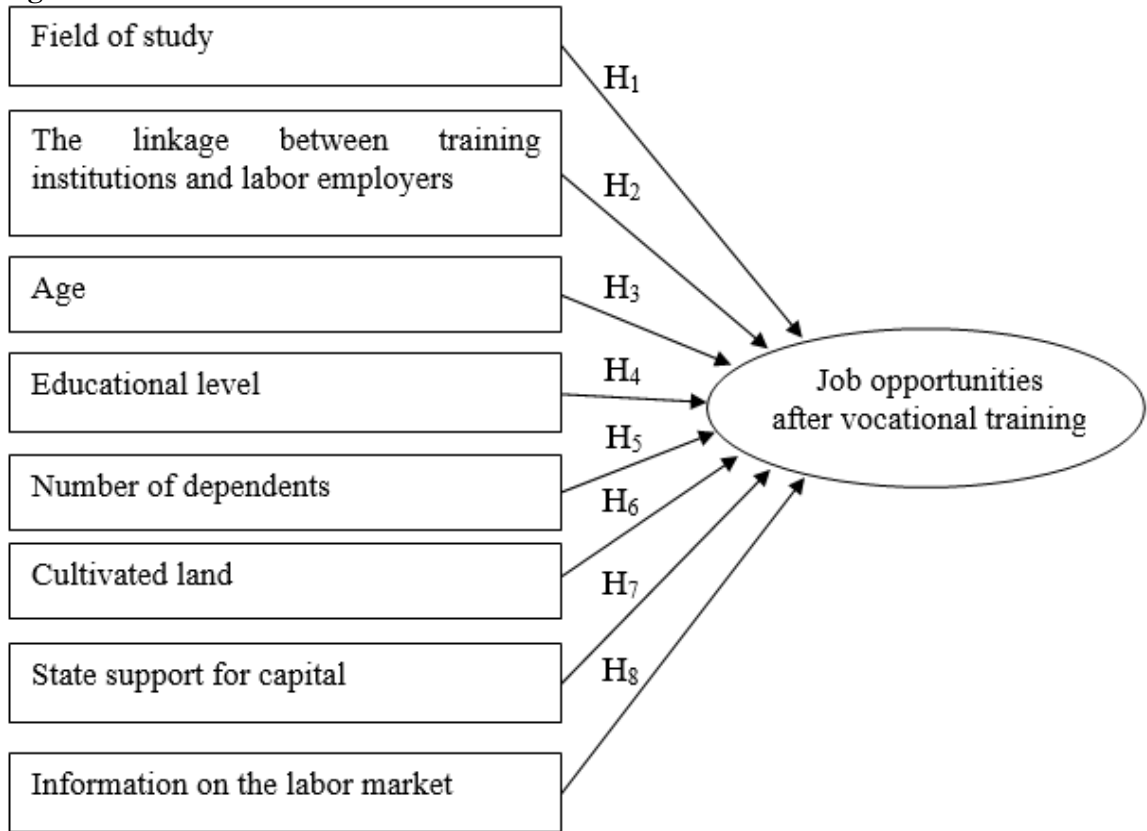
Hypothesis H6: Cultivated land has a negative impact on employment opportunities.

Hypothesis H7: State support for capital has a positive impact on employment opportunities.

Hypothesis H8: Information about the labor market has a positive impact on employment opportunities.

The model analyzes the factors influencing employment opportunities after vocational training for rural labor in Can Tho City, as presented in Figure 1.

Figure 1: Research Model.



Research Methods

The author conducted primary data collection by surveying the opinions of laborers within a specific age range (16 to 60 for males, and 16 to 55 for females) listed as vocational learners at the Center for Continuing Education - Vocational Guidance in Can Tho City. This survey utilized a pre-designed questionnaire administered through a systematic random sampling method.

According to Tabachnick & Fidell (1991), when employing regression methods, the required sample size is calculated using the formula: $n \geq 50 + 8p$, where n is the minimum required sample size, and p is the number of independent variables in the model. Therefore, with 7 proposed independent variables in the research model, the minimum sample size needed for investigation is 106 observations. Considering objective and subjective conditions, the author decided on a sample size of 200 observations. The survey, based on the pre-prepared interview questionnaire, was conducted in January 2022. The authors utilized the Binary Logistic Regression model to analyze the factors influencing employment opportunities after vocational training for rural laborers in Can Tho City.

Research Results

The statistical results reveal a gender disparity in the labor force, with a notable prevalence of female participation, constituting 61.43% of the total workforce in various professions in Can Tho City. Occupations such as weaving, hairstyling, household appliance assembly, and cooking prominently feature high proportions of female labor. These fields demand precision and finesse, making them well-suited for female participation. Furthermore, many of these professions involve short-term training, allowing women to quickly enter the labor market without prolonged learning periods.

Additionally, the majority of vocational training participants in Can Tho City come from the idle rural labor force, predominantly comprising women. This group finds vocational options that require less time commitment appealing, facilitating swift entry into the labor market. Women can leverage their spare time to generate additional income for their families. In contrast, male labor participation stands at 38.57%, typically concentrated in sectors like transportation, refrigeration, vehicle repair, and domestic electrical work. These professions often serve as their primary occupation, and vocational training serves to enhance skills and augment income.

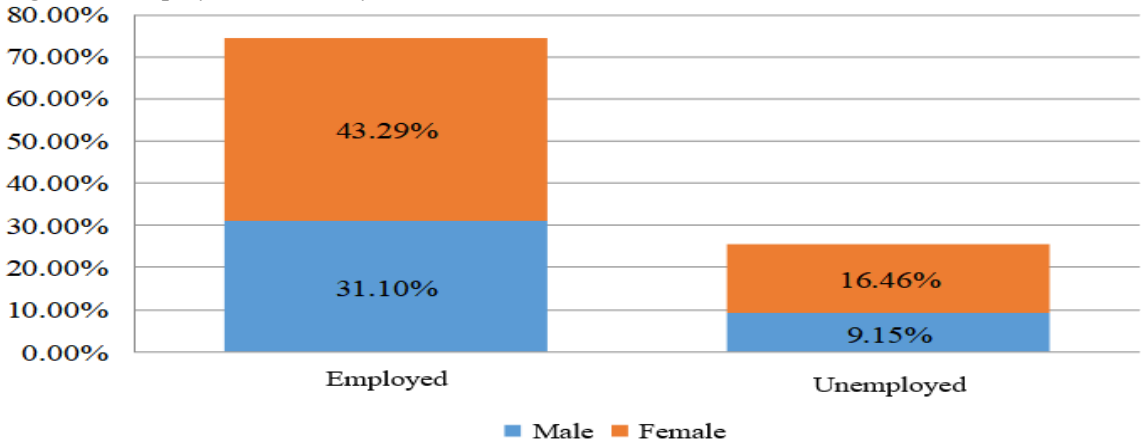
However, these fields may offer fewer training opportunities, involve longer learning durations, and incur higher educational costs, particularly for specialized areas like transportation. Another contributing factor is that men often serve as the primary workforce for their families, leading them to engage in industrial zones and enterprises, making them less likely to participate in short-term vocational training courses. Thus, gender plays a role in shaping employment opportunities for individuals post-vocational training, a phenomenon supported by studies such as Fang-ting et al. (2015), demonstrating disparities in vocational training and job-seeking between genders due to various objective factors.

When engaging in vocational training, workers typically aspire to enhance their employment prospects. According to statistics, the majority of workers (74.39%) secured jobs aligned with their training after completing vocational courses, while 25.61% either remained unemployed or worked in a different field. Women constituted a higher percentage of those employed, with 43.29% compared to men at 31.10%. This discrepancy may be attributed to the significant impact of the Covid-19 pandemic on women, especially those from industrial zones. During the temporary unemployment period, they received support from the Women's Union and Agricultural Promotion Association, participating in short-term vocational training courses and swiftly entering the local labor market.

Male workers typically engage in vocational training and work locally. The proportion of workers without suitable employment related to their training is low, with 16.46% for women and 9.15% for men. The cases of unemployment or working in an unrelated field are primarily associated with two groups. Firstly, young workers who, due to their health and capabilities, are willing to change jobs for better opportunities with higher pay and a better working environment. The second group comprises individuals who have received vocational training but are unemployed or lack employment, often due to serious illness or having family members facing health challenges. Consequently, their focus tends to be on health and family responsibilities over work. The main income source for these households is often provided by other family members who are employed.

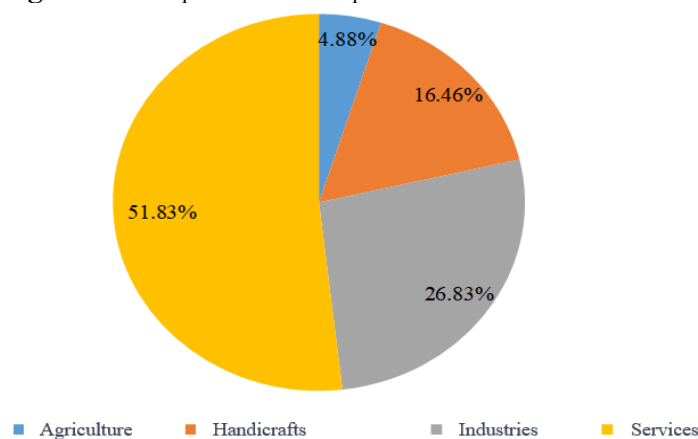
Examining the pie chart reveals that the service sector has the highest vocational training rate at 51.83%. This can be attributed to the abundance of vocational training facilities in service-oriented fields such as makeup, hairstyling, bartending, cooking, etc., both locally and in neighboring provinces. These professions not only promise high income but also cater to a predominantly female demographic, making them popular choices among women seeking vocational education. On the contrary, vocational training in the agricultural sector is relatively low, accounting for only 4.88%. Currently, there is a scarcity of short to medium-term vocational training centers related to agriculture, resulting in limited access to these courses.

Figure 2: Employment Rates by Gender.



Craft industries constitute approximately 16.46%, while industrial sectors have a higher participation rate, reaching 26.83%. Craft industries offer easy entry, short training durations, and often lead to immediate job opportunities after completion. Industrial sectors such as refrigeration, driving, etc., are currently experiencing growth and offer stable incomes, attracting many individuals to pursue vocational training. Moreover, during the pandemic, individuals affected in other professions sought refuge in craft industries, contributing to the increased participation rate. However, the gender gap persists, with predominantly male participation due to the barrier of training duration. In summary, it is evident that vocational fields in the service sector currently dominate, boasting numerous training facilities and a considerable number of participants in service-related vocational education.

Figure 3: Occupational Participation.

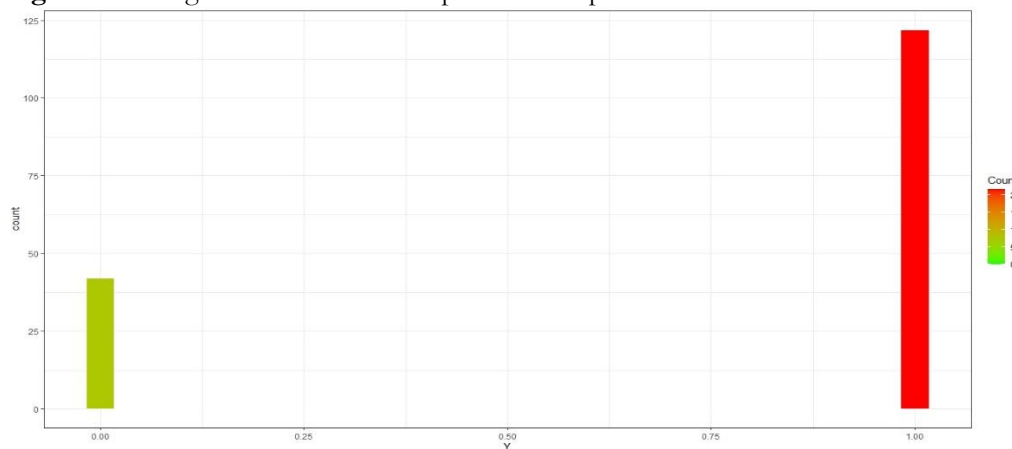


In summary, the workforce engaged in vocational training is predominantly comprised of women with predominantly low educational levels, typically holding a secondary school degree, and falling within the age range of 25-40. Participation in vocational training creates high employment opportunities for workers. Stable employment provides a substantial income source, particularly in the service industry. This indicates that vocational training is progressively evolving, generating more job opportunities for workers and subsequently contributing to income growth. Nevertheless, certain local industries may no longer offer high-income prospects due to decreased labor demand. Consequently, workers must adapt and seek alternative employment options to ensure overall income stability. Moreover, the high participation of women in

vocational training has proven to be financially rewarding for female workers. For men, engaging in vocational training has resulted in stable employment and income.

Moreover, the histogram distribution graph illustrates that the dependent variable in the model takes two values: 0 and 1. Consequently, the majority of surveyed workers have employment matching their trained profession, corresponding to the value 1, and this variable is binary in nature. Therefore, the Binary Logistic regression method is suitable for the dataset.

Figure 4: Histogram Distribution Graph of the Dependent Variable.



The results of Binary Logistic regression are statistically significant, with a Chi-square test yielding 59.11 and a Prob > χ^2 value of 0.000. Additionally, the Log Likelihood value is -63.75, and the Pseudo R^2 value is 0.3168, indicating a relatively small effect size. The model exhibits a high level of reliability, or in other words, an accuracy rate of 81.1%. Therefore, the variation in the employment opportunity variable after vocational training is explained by the variations in State support for capital, the field of study, the linkage between training institutions and labor employers, age and the number of dependents.

Table 1: Results of Binary Logistic Regression Analysis.

Factor	B Coefficient	dY/dX	P value
Constant	1.8424 n.s	-	0.371
The primary independent variables			
State support for capital	0.0003 **	0.00004	0.050
Industries	2.5860 *	0.19508	0.059
Handicrafts	0.1075 n.s	0.01362	0.910
Services	-0.1768 n.s	-0.02275	0.854
Educational level	0.0832 n.s	0.01073	0.390
<i>The linkage between training institutions and labor employers</i>			
Information about the labor market	-0.5422 n.s	-0.06755	0.352
Control variables			
Cultivated land	0.6092 n.s	0.07482	0.220
Age	-0.0720 ***	-0.00929	0.006
The number of dependents	-0.6143 ***	-0.07918	0.009
Number of observations		210	
Pseudo R^2		0.3168	
Chi-square test		59.110	
Log-likelihood value		-63.748	
Prob> χ^2		0.000	
Accuracy level		81.1%	

Note: (***) significance level 1%, (**) significance level 5%, (*) significance level 10%, (n.s) Not statistically significant

Vocational training is a crucial and necessary requirement in the current phase, especially during the integration process and the direction of industrializing agriculture in rural areas. It demands that the workforce be equipped with specific vocational skills, a necessary condition to "awaken" the potential rural areas, promoting rapid economic and social development throughout Can Tho City, and reducing the disparity in the labor force's skill level between urban and rural areas.

Survey results indicate that 1.22% of rural laborers choose agricultural occupations, 45.12% opt for industry and small-scale industries, and 53.66% choose service occupations. The number of non-agricultural vocational participants is higher than those in agricultural vocations. This suggests that rural laborers in Can Tho City tend to choose professions aligned with local development trends. However, recent disease outbreaks have significantly altered the economic and employment landscape, particularly impacting the service sector, making it the most affected. Therefore, the variable representing the industry in the experimental model has not positively influenced the employment opportunities of rural laborers, contrary to previous studies by other authors.

Nevertheless, the survey results also show that after graduation, only 25.61% of laborers are either unemployed or employed outside their trained field, while the remaining 74.39% find employment within their trained profession. This demonstrates a relatively successful vocational training effort, which needs to be further leveraged in the future.

In addition, the study employed the Binary Logistic regression model estimation method with a sample size of 210 observations directly interviewed from rural laborers in the district. The regression results highlight five influencing factors: State support for capital, the field of study, the linkage between training institutions and labor employers, age and the number of dependents impacting the employment opportunities of rural laborers after receiving vocational training in Can Tho City. Notably, the variable representing the frequency of vocational training positively influences the laborers' chances of finding suitable employment, while the other variables have opposing effects.

Conclusion

According to the regression results, various sectors such as small-scale industry and services are influencing the employment opportunities of laborers in Can Tho city. Therefore, at the local level, there should be a continued emphasis on vocational training across various fields. Specifically, for small-scale industry and service sectors, the training should focus on specialization and skill enhancement. Ongoing investigations and surveys are crucial to ensuring the selection of professions aligned with local needs and economic demands for training and employment solutions. Additionally, gathering feedback from learners after training is essential to assess satisfaction levels, higher learning needs, or diversification of learners' vocational interests. This input can aid in developing suitable programs and preparing necessary equipment to facilitate effective learning and practical application of theoretical knowledge.

Furthermore, enhancing the quality of vocational training is imperative. This can be achieved through collaboration with training institutions to build a high-quality teaching staff, develop comprehensive and high-quality training programs.

Age is a significant factor influencing employment opportunities after vocational training. Based on the age of rural laborers with a desire for vocational education, appropriate vocational fields should be planned and selected. For laborers aged 15-49, choosing industrial and service professions should be encouraged to promote participation in training, providing employment opportunities, or skill enhancement. Encouraging vocational training models within businesses to create direct employment opportunities should be a priority. For older laborers engaging in work primarily to supplement income

during leisure time, encouraging them to learn vocational skills and develop professions such as small-scale industry or home-based work is more suitable.

The variable representing the number of dependents in the family holds statistical significance in the model. Therefore, there should be a greater focus on post-training support activities. When introducing employment opportunities after vocational training, centers or vocational teachers should prioritize learners with challenging family circumstances, i.e., those with a higher number of dependents. Moreover, recommending establishments with reasonable income for these learners provides more opportunities for suitable employment, additional income to support their families, and continued employment.

Despite efforts, the study has some limitations. Firstly, although the overall data meet requirements, the limited number of observations from laborers studying vocational courses in different locations outside the local area remains a constraint. Secondly, the study primarily analyzes factors related to rural laborers in the region, neglecting factors such as bank loans, support from non-governmental organizations, recent pandemic situation, etc., which could impact their ability to find employment in their chosen field.

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