

# Enhancing Employment Opportunities for People with Disabilities in Vietnam: The Role of Vocational Training and Job Placement Centers

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## ABSTRACT

This study aims to explore the effectiveness of vocational training programs in facilitating suitable employment opportunities for individuals with disabilities in Vietnam. To achieve this objective, a sample of 217 participants with disabilities from Can Tho city was categorized into four groups based on disability types: Physical disabilities, Hearing and speech impairments, Visual impairments, and Neurological and mental disabilities. The findings revealed significant positive impacts of various factors on the effectiveness of vocational training and subsequent employment opportunities for people with disabilities. Notably, training facilities emerged as the strongest positive influence, followed by Teacher quality, Training programs, and Financial support. Moreover, differences were observed in the impact of vocational training effectiveness on employment opportunities among different disability groups, with individuals with physical disabilities experiencing a stronger influence compared to other disability types. These results highlight the importance of enhancing vocational training programs and support mechanisms to improve employment outcomes for people with disabilities in Vietnam.

## KEYWORDS

People with disabilities; Effectiveness of vocational training; Employment opportunities; Vietnam

## 1. Introduction

In order to alleviate poverty and achieve sustainable development goals, Vietnam is confronted with numerous challenges. Employment plays a central role in society, allowing individuals to contribute to economic development and generate income for themselves (United Nations Development Programme Vietnam, 2020). Employment also reflects the level of comprehensive participation and equitable treatment for people with disabilities. Employment not only enables people with disabilities to support themselves but also ensures the sustainability of their families, helping them feel valued and meaningful in society and more confident in their abilities. The involvement of people with disabilities in the labor market can significantly contribute to the country's economy. Countries may lose between 1-7% of their GDP if people with disabilities are not facilitated to participate in the labor market (International Labour Organization, 2019). However, in reality, people with disabilities and their families still face many limitations in accessing employment opportunities, thus, have not yet escaped poverty (United Nations Department of Economic and Social Affairs, 2020). In Vietnam, the estimated number of people with disabilities is about 6.1 million, accounting for approximately 7.8% of the

population (General Statistics Office of Vietnam, 2020).

However, the unemployment rate for people with disabilities is 28%, with the unemployment rate increasing with the severity of disability (74.7%). In urban areas, the unemployment rate for this group is 13.9% - a relatively high figure. In the future, the number of people with disabilities in Vietnam is projected to continue increasing due to the lasting effects of Agent Orange exposure from the Vietnam War, environmental pollution, traffic accidents, and the profound impact of natural disasters. Additionally, the COVID-19 pandemic is causing long-term effects on the employment of people with disabilities. The COVID-19 pandemic has resulted in 30% of people with disabilities losing their jobs, 49% experiencing reduced working hours, and 59% facing wage cuts. The majority of people with disabilities (71% of employed respondents) are engaged in seasonal or informal work, resulting in unstable income (United Nations Development Programme Vietnam, 2022).

Vocational Training is aimed at training and equipping individuals with knowledge and skills in social work. They have the responsibility to assist vulnerable groups in the community (people with disabilities, the poor, etc.) by performing their roles such as connectors, advocates, advisors, consultants, etc. Vocational Training and Job Placement Centers play a connecting role, assisting in resolving employment issues for people with disabilities, helping people with disabilities obtain sustainable employment suitable for their conditions and capacities. For many years, Vocational Training and Job Placement Centers have acted as intermediaries connecting people with disabilities and the labor market and are expected to be an effective tool in the future to help people with disabilities access the labor market. However, the activities of Vocational Training and Job Placement Centers in the community, especially in the connecting role, still face many difficulties and obstacles, leading to less effective support for vulnerable groups in the community. Therefore, re-evaluating the effectiveness of Vocational Training and Job Placement Centers' activities and the relationship between Vocational Training and Job Placement Centers and Employment Opportunities for Disabled Individuals in Vietnam to create conditions for people with disabilities to integrate into the community is essential.

Currently, there are also some studies worldwide addressing the issue of people with disabilities and employment for People with disabilities to propose support measures such as Melanie (2006), Tossebro and Olsen (2020), Huo (2023), Qiu et al. (2023), Boutros and Fakih (2023), Matteo et al. (2024), Alexander et al. (2024). However, most of these studies use qualitative methods to approach and study the general factors affecting Employment Opportunities for Disabled Individuals. Therefore, this study is based on theoretical foundations to quantify and analyze more deeply the specific relationship between two important factors that previous studies have affirmed: Vocational Training and Job Placement Centers and Employment Opportunities for Disabled Individuals in Vietnam through quantitative data to provide a more comprehensive and reliable scientific basis to serve the development of vocational training programs, job introduction for People with disabilities by government and non-governmental organizations in Vietnam.

## **2. Theoretical background**

### **2.1 The concept of people with disabilities**

People with Disabilities are individuals who have one or multiple impairments, whether physical or mental, which directly affect their mobility or cognitive abilities (Vietnam Ministry of Labor - Invalids and Social Affairs, 2019). These impairments lead to significant reductions and long-term impacts on their lives. Diminished physical or intellectual capacities of People with Disabilities result in decreased mobility and cognitive awareness.

According to the Vietnam Ministry of Labor - Invalids and Social Affairs (2019), People with Disabilities constitute the largest minority group globally and are also one of the most vulnerable groups. According to Vietnam Law on People with Disabilities 2010, types of disabilities include: (1)

Physical disabilities; (2) Hearing and speech impairments; (3) Visual impairments; (4) Neurological and mental disabilities; (5) Intellectual disabilities; (6) Other disabilities.

## **2.2 Employment for people with disabilities**

The issue of People with Disabilities participating in the workforce is a matter of concern for the United Nations, the International Labour Organization, and many countries worldwide. This concern is reflected in the United Nations Convention on the Rights of Persons with Disabilities (CRPD) and Convention 159 on Vocational Rehabilitation and Employment (1983), aimed at safeguarding the labor rights of People with Disabilities. Several developed (such as the United States, South Korea, ...) and developing countries (including China, India, Thailand, Vietnam, ...) have enacted legal policies specifically for disabled workers, ensuring their equal participation and access to various employment opportunities.

The right to employment and work for People with Disabilities is articulated in Article 27 of the CRPD, affirming their equal right to work like other workers. To ensure this fundamental right, Article 27 of the CRPD also outlines the responsibility of member states to recognize the labor rights of People with Disabilities on an equal basis with others, promoting and realizing employment rights through legislative measures, including: Recruiting People with Disabilities in public sectors; Promoting their employment in the private sector through appropriate measures and policies, including incentive programs, rewards, and other measures. Furthermore, Article 3 of Convention 159 also stipulates provisions for national policies to promote employment opportunities for People with Disabilities in the labor market. Essentially, international laws emphasize and affirm the role of the state and relevant parties in ensuring equal employment opportunities for People with Disabilities. In addition to the provisions in the CRPD and some ILO Conventions, the laws of some countries also address policies to promote the employment of People with Disabilities in the labor market.

The CRPD affirms the right to ensure fair and favorable working conditions based on equality for People with Disabilities, including the right to safe work and health protection for People with Disabilities. Additionally, the Standard Rules on Equalization of Opportunities for Persons with Disabilities, adopted by the United Nations in Resolution 48/96 on December 20, 1993, assert that nations must ensure that People with Disabilities receive the same level of healthcare within the same system as other members of society. In the field of employment, laws and regulations related to employment should not discriminate against People with Disabilities and should not elevate barriers to their employment. It can be seen that international laws do not have separate provisions regarding the healthcare of disabled workers but rather require countries to ensure equality as with others. Creating more differences between People with Disabilities and non-disabled individuals will increase barriers to their employment.

In general, People with Disabilities and their employment have received early attention from the Vietnamese state. The 1946 Constitution, the 1959 Constitution, and the 1980 Constitution have provisions on the right to work of all citizens and policies for the disabled. The 1992 Constitution of Vietnam affirms: "The elderly, People with Disabilities, and orphans without means of support receive assistance from the State and society". In 1994, the Vietnamese Ministry of Labor codified state policies and detailed guidelines for implementing the provisions of the 1992 Constitution related to labor, labor management, and utilization, which was the first comprehensive legal document on the labor of People with Disabilities. The Labor Law of 1994 comprises 198 articles, and in Chapter XI, Section III, from Articles 125 to 128, it stipulates some important content regarding the labor of People with Disabilities, creating a comprehensive legal framework to address issues related to the labor of People with Disabilities. The Labor Law of 1994 has been amended four times in 2002, 2006, 2007, and 2012, with adjustments to better meet practical requirements, notably the removal of working hour regulations for People with Disabilities to contribute to creating a fair working environment between People with Disabilities and non-disabled individuals. In addition to the provisions of Vietnam's Labor

Law, the issue of employment for People with Disabilities is also mentioned in many other legal documents of Vietnam, such as the Disability Law, the Employment Law, the Vocational Training Law, the Corporate Income Tax Law, and guiding documents. All national legal documents related to the labor of People with Disabilities aim to ensure their access to employment and equal participation in the labor market. However, these laws have yet to be detailed, and their application in practice is still limited and varies depending on different localities.

### 3. The research model

The World Health Organization (2001) endorsed the International Classification of Functioning, Disability and Health model, synthesized from both medical and social perspectives, to identify direct factors influencing people with disabilities such as education, skills, training support policies, employment, relationships, and support from family, friends, and government; age; gender; and lifestyle. This finding is further supported by empirical studies such as Huo (2023).

Additionally, a range of concurrent studies have highlighted variations in the employment status of people with disabilities among different disability severity groups (Grow, 2004; Shaw et al., 2007; Boman et al., 2015; Naraharsetti & Castro, 2016; Boutros & Fakih, 2023; Ballo & Alecu, 2023). Disability types are identified in the studies of Naraharsetti and Castro (2016), Marigu (2012), Boman et al. (2015), Boutros and Fakih (2023), Ballo and Alecu (2023). Based on the theoretical framework presented, the group puts forth three main research hypotheses:

H1: Financial support during vocational training has a positive impact on the effectiveness of vocational training for people with disabilities in Vietnam.

H2: Training facilities has a positive impact on the effectiveness of vocational training for people with disabilities in Vietnam.

H3: Teacher quality has a positive impact on the effectiveness of vocational training for people with disabilities in Vietnam.

H4: Training programs have a positive impact on the effectiveness of vocational training for people with disabilities in Vietnam.

H5: The effectiveness of vocational training positively impacts the opportunity to obtain suitable employment for people with disabilities in Vietnam.

H6: Market labor information updates have a positive impact on the opportunity to obtain suitable employment for people with disabilities in Vietnam.

H7: Job connections have a positive impact on the opportunity to obtain suitable employment for people with disabilities in Vietnam.

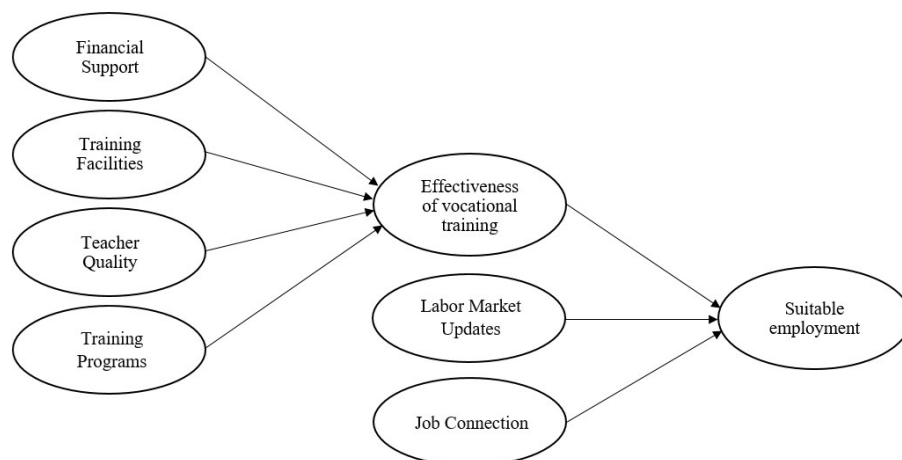


Figure 1 Research framework

## 4. Research methods

Based on the theoretical framework of the International Classification of Functioning, Disability and Health model and drawing from empirical studies, the authors refined the measurement scale for the research concepts. A preliminary scale was identified with 27 observable variables. The study consisted of two main steps: A preliminary study (qualitative and quantitative) and the formal quantitative study. In the qualitative study, after discussions with a focus group of four experts managing Vocational Training and Job Placement Centers for people with disabilities, adjustments were made to ensure the coherence and comprehensibility of the questionnaire, and two additional observable variables were added, resulting in a formal scale of 29 observable variables.

In the preliminary quantitative study, the authors surveyed 50 disabled workers who had received vocational training and job referrals. After data screening, 50 valid surveys were subjected to scale reliability testing and exploratory factor analysis. The results confirmed the reliability and discriminative power of all observable variables, affirming the formal scale's validity. The formal quantitative study involved surveying 230 disabled workers who had undergone vocational training and received job referrals, currently employed in the Ninh Kieu, Binh Thuy, Cai Rang, and O Mon districts of Can Tho City. The sample was collected using quota sampling to ensure representation across different types and degrees of disability. Following the determination of sample sizes for each target group, the authors conducted direct surveys with support from staff and teachers at vocational training centers and social workers. After data screening, a total of 217 valid observations were retained

## 5. Research results

### 5.1 Sample description

The survey included 217 disabled workers who had received vocational training and job referrals, comprising 116 females (53.5%) and 101 males (46.5%). This relatively balanced gender ratio ensured objective comparisons between the genders in the study. All 217 disabled workers are employed. However, among these, 136 individuals have suitable employment, matching their trained field, accounting for 62.7%, while the remaining 81 individuals, corresponding to 37.3%, have jobs that do not align with their trained field. Regarding age distribution, the group of disabled workers aged 34 to 40 represents the highest proportion at 38.7%. This is followed by the age groups of 19 to 26, accounting for 28.6%, 27 to 33, representing 24%, and finally the group over 40, constituting 8.7%.

In terms of disability types, individuals with physical disabilities represent the highest proportion, with 82 individuals, accounting for 37.8%. Following this group are individuals with visual impairments, comprising 74 individuals, corresponding to 34.1%. The group with hearing and speech impairments consists of 53 individuals, representing 24.4%. The smallest proportion is observed in the group with neurological and mental disabilities, with 8 individuals, accounting for 3.7%. This group faces the most challenges in accessing vocational training and job opportunities. According to the Law on Persons with Disabilities of 2010 in Vietnam, disability levels are categorized into three groups. Severe disability refers to individuals who have completely lost function, cannot control themselves, or perform daily activities independently due to their disability, requiring full assistance and care from others. This group consists of 13 individuals, accounting for 6%. Moderate disability includes individuals who have partially lost function or have reduced functionality, unable to control or perform some daily activities independently due to their disability, requiring assistance, monitoring, and care from others. This group comprises 127 individuals, representing 58.5%. The remaining group, mild disability, includes individuals who do not fall into the above-mentioned categories of severe or moderate disability. This group consists of 77 individuals, accounting for 35.5%.

Table 1 Demographic characteristics of respondents

Criteria	Frequency	Percentage
<b>Gender</b>		
Male	101	46.5
Female	116	53.5
<b>Suitable employment, matching the trained field</b>		
Yes	136	62.7
No	81	37.3
<b>Age</b>		
19 – 26 years old	62	28.6
17 – 33 years old	52	24.0
34 – 40 years old	84	38.7
Over 40 years old	19	8.7
<b>Disability types</b>		
Physical disabilities	82	37.8
Hearing and speech impairments	53	24.4
Visual impairments	74	34.1
Neurological and mental disabilities	8	3.7
<b>Disability levels</b>		
Severe disability	13	6.0
Moderate disability	127	58.5
Mild disability	77	35.5
<b>Total</b>	<b>217</b>	<b>100.0</b>

## 5.2 PLS SEM results

The PLS-SEM method is highly suitable for analyzing complex models with multiple simultaneous relationships, particularly when traditional covariance-based SEM techniques face certain limitations, as noted by Ringle et al. (2012). The results presented in Table 2 demonstrate that the measurement indicators in the model meet the specified conditions. Firstly, the factor loadings of the observed variables are all greater than 0.7, which enhances the reliability of the measurements. The factor loadings of the constructs related to internal consistency reliability (measured through composite reliability - CR) and convergent validity (measured by average variance extracted - AVE) meet the prescribed standards (Hair et al., 2016). Secondly, all CR and Cronbach's Alpha values exceed 0.7, confirming the appropriate internal reliability of the measures. Moreover, all AVE values exceed the required threshold of 0.5, and all rho\_A values exceed 0.7, thus reinforcing the measures' convergence and reliability.

Table 2 Results of testing the reliability and convergent validity of the scale

Factor	Code	Minimum Factor Loading	Cronbach's Alpha	Rho_A	Composite Reliability	Average Variance Extracted
Testing Standards		> 0.5	≥ 0.6	≥ 0.7	≥ 0.7	≥ 0.5
Financial support	1	0.634	0.827	0.834	0.827	0.721
Training facilities	2	0.583	0.851	0.883	0.891	0.788
Teacher quality	3	0.749	0.742	0.727	0.758	0.575
Training programs	4	0.676	0.770	0.745	0.782	0.592
Market labor information updates	5	0.542	0.885	0.905	0.941	0.839
Job connections	6	0.784	0.791	0.782	0.803	0.671
Effectiveness of vocational training	7	0.545	0.807	0.816	0.811	0.696
Suitable employment	8	0.736	0.856	0.893	0.902	0.818

Finally, the authors examined the discriminant validity conditions through two important criteria: (1) Following the traditional evaluation criterion where one typically compares the square root of the Average Variance Extracted (AVE) with the highest value among the correlation coefficients in the same row or column (Fornell & Larcker, 1981), the results in Table 3 demonstrate that the square root of AVE is greater than all correlation coefficients in the same column or row; (2) the Heterotrait-Monotrait ratio (HTMT) of the correlation coefficients must be less than the standard value of 0.85 (Henseler et al., 2015). The results in Table 3 confirm that all HTMT ratios are less than 0.85. Thus, through these two distinct evaluation criteria, it is affirmed that the measures in the model ensure discriminant validity.

Table 3 The results of testing the discriminant validity of the scale

Factor	Fornell & Lacker Standards							Heterotrait - Monotrait Ratio							
	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7
1	<b>0.849</b>														
2	0.254	<b>0.887</b>							0.317						
3	0.157	0.267	<b>0.758</b>						0.234	0.325					
4	0.231	0.104	0.184	<b>0.769</b>					0.291	0.169	0.211				
5	0.318	0.258	0.120	0.235	<b>0.915</b>				0.345	0.302	0.168	0.248			
6	0.479	0.357	0.245	0.346	0.164	<b>0.819</b>			0.544	0.401	0.287	0.415	0.185		
7	0.355	0.401	0.292	0.124	0.282	0.271	<b>0.834</b>		0.499	0.459	0.307	0.188	0.316	0.322	
8	0.291	0.369	0.317	0.259	0.306	0.153	0.242	<b>0.904</b>	0.321	0.412	0.346	0.283	0.356	0.172	0.331

The structural model analysis results indicate the absence of multicollinearity in each predictor variable (independent latent variables), as all Variance Inflation Factor (VIF) values are below 2.461. Thus, all VIF values are lower than the permissible standard of 5 (Hair et al., 2011). Additionally, the R2 values of the Effectiveness of vocational training and the Suitable employment are 0.578 and 0.436, respectively (Figure 4), aligning with previous studies and supporting the predictive capability of the observed sample in the model (Sarstedt et al., 2014; Ali et al., 2018). Furthermore, the model fit was assessed through the Standardized Root Mean Square Residual (SRMR), which yielded an SRMR value of 0.051, indicating a good fit as it is less than 0.08 (Henseler et al., 2014; Hair et al., 2016). Figure 4 presents the estimation results of the PLS-SEM model alongside the loadings of each variable in the corresponding factor scale.

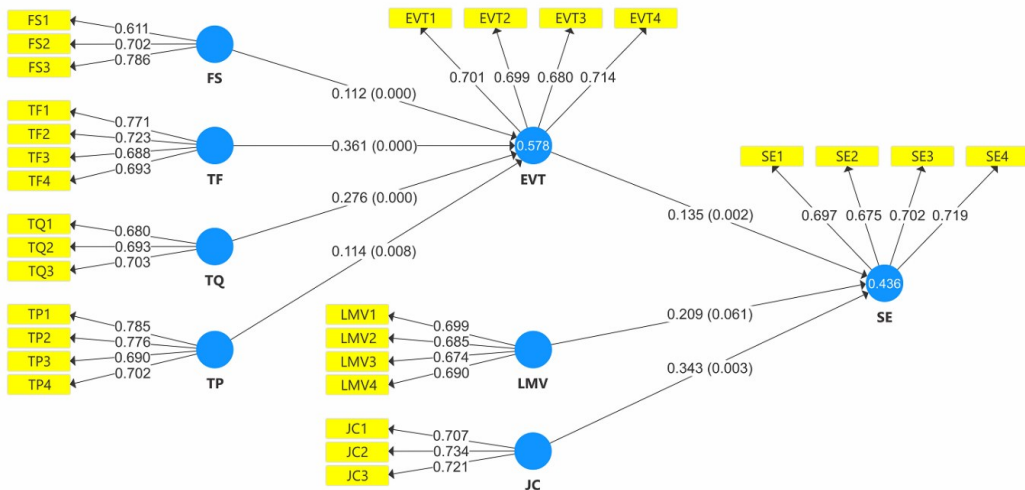


Figure 4 PLS-SEM estimation results

To enhance the reliability of factor estimation results in the model, the authors conducted bootstrap testing with 5000 samples and retained the sign. The results provide the coefficient values of each factor and the significance values of the regression coefficients (P-value) enclosed in parentheses for the PLS-SEM model. Table 4 presents the outcomes post-bootstrap analysis. Research results show that 7 hypotheses are accepted with high reliability (P-value < 0.05). Notably, Training facilities exert the strongest positive impact on the effectiveness of vocational training (estimated coefficient = 0.361), followed by Teacher quality as the second-highest positive influence with an estimated coefficient of 0.276. Training programs ranks third in terms of significant positive influence, with an estimated coefficient of 0.114. Finally, Financial support (estimated coefficient = 0.112) follow in sequence. Additionally, the results demonstrate that the effectiveness of vocational training (estimated coefficient = 0.135) and job connections (estimated coefficient = 0.343) positively impact the opportunity to obtain suitable employment for people with disabilities in Vietnam.

Table 4 Bootstrap results of the PLS-SEM model

Relationship	Hypothesis	Coefficient	P-value	Result
Effectiveness of vocational training ← Financial support	H1	0.112	0.000	Accepted
Effectiveness of vocational training ← Training facilities	H2	0.361	0.000	Accepted
Effectiveness of vocational training ← Teacher quality	H3	0.276	0.000	Accepted
Effectiveness of vocational training ← Training programs	H4	0.114	0.008	Accepted
Suitable employment ← Effectiveness of vocational training	H5	0.135	0.002	Accepted
Suitable employment ← Market labor information updates	H6	0.209	0.061	Rejected
Suitable employment ← Job connections	H7	0.343	0.003	Accepted

The research findings demonstrate an understanding of the complex interaction among various factors, including Effectiveness of vocational training and Suitable employment for people with disabilities in Vietnam. Firstly, the study affirmed the importance of Training facilities in vocational training for disabled workers. Currently, the infrastructure and training equipment for disabled individuals in Vietnam's training centers are inadequate and lack comprehensive investment. Additionally, the application of assistive technology in vocational training for people with disabilities remains limited. According to Hersh and Johnson (2007), assistive technology plays a crucial role in bridging the gap between what disabled individuals want to accomplish and the existing social infrastructure, allowing them to achieve their goals. Therefore, it is imperative for the Vietnamese government and relevant organizations to implement projects aimed at improving and upgrading Training facilities, particularly in terms of computer and electronic devices to facilitate the deployment of assistive technology and communication technology, thus enabling more effective learning for disabled individuals.

Another challenge in vocational training for people with disabilities arises from Teacher quality. Teaching disabled individuals requires patience, as their learning pace is generally slower than that of others. Therefore, teachers need to provide individualized guidance and support tailored to each individual's needs. Moreover, teachers should help them develop self-reliance skills as most of them lack basic life skills and may struggle with communication and social integration. Teacher quality significantly influences the effectiveness of vocational training.

Training programs are also noteworthy as they positively impact the effectiveness of vocational training. Currently, vocational training programs in Vietnam for disabled individuals lack proper curriculum design, practical elements, and specialized materials. The lack of standardized training programs across centers complicates the evaluation process for prospective employers.

Lastly, financial support, while not the most significant factor, does have a positive impact on the effectiveness of vocational training. Receiving financial support during training allows disabled individuals to focus more on their studies. However, Vietnam lacks specific credit policies for people with disabilities. They face challenges in accessing favorable loans for vocational training or

establishing businesses due to the limited allocation of funds from the National Employment Fund. Consequently, the accessibility of disabled individuals to preferential loan sources for job creation remains low. Furthermore, the Vietnam Bank for Social Policies has yet to allocate specific funds for disabled individuals to develop vocational training, production, and business ventures.

Additionally, the research results indicate that the effectiveness of vocational training positively influences the opportunity for people with disabilities to obtain suitable employment in Vietnam. This scientific evidence underscores the need for the Vietnamese government to review and refine mechanisms and policies to address lingering limitations in various aspects such as Financial support, Training facilities, Teacher quality, and Training programs, aiming to enhance the effectiveness of vocational training and thereby improve the opportunity for disabled individuals to secure suitable employment. The Vietnamese government should clearly define the functions, tasks, and authority and establish specific policies to further leverage the role of vocational training centers. Moreover, relevant authorities should develop databases on disabled individuals to analyze and assess the vocational training and employment needs of each group, thus formulating appropriate and effective support policies. At the provincial and municipal levels in Vietnam, vocational education institutions need to review accessibility conditions for disabled individuals, including access to classrooms, workshops, and other facilities. It is essential to adjust programs and durations to ensure that disabled individuals can acquire knowledge and vocational skills effectively. Adequate provision of suitable teachers to guide disabled individuals in vocational training is also crucial.

In addition to the effectiveness of vocational training, job connections significantly impact the opportunity for disabled individuals to obtain suitable employment. Alongside vocational training activities, facilitating job creation for disabled workers is crucial because employment not only helps them generate income to meet their own and their families' needs but also promotes their functional rehabilitation, community integration, and, most importantly, ensures their citizenship rights. However, vocational counseling and job placement support in Vietnam remain limited. Entities providing services related to employment and labor rehabilitation for disabled individuals, such as vocational training centers, job placement centers, rehabilitation facilities, and enterprises, have yet to establish close connections and cooperation. The implementation of Employment Funds for disabled individuals in Vietnam faces challenges due to restrictive regulations and limited activity content, hindering expansion. Addressing the employment connection challenge will enhance the likelihood of suitable employment opportunities for disabled individuals. This underscores the need for coordination among state management agencies in developing a unified and transparent labor market connection system to link vocational training and labor utilization for disabled individuals. Building a transparent and reliable information channel will expand the connection between workers and employers, enhance job-solving capabilities, and create opportunities for disabled workers to grasp practical needs, identify directions for themselves, choose jobs, and improve the quality and structure of their careers in accordance with market mechanisms.

### **5.3 Multigroup analysis results**

The Multi-group Analysis method was used to compare how vocational training effectiveness relates to the chance of disabled individuals finding suitable employment across different disability types. Sarstedt et al. (2011) suggested PLS-MGA (PLS multi-group analysis) as a tool to test significant differences in specific group outcomes, based on Bootstrapping PLS-SEM results. The results show noticeable differences at a 5% error rate if the p-value is less than 0.05 or greater than 0.95 for a specific group's path coefficient. Using this method, the survey sample is divided into various groups based on disability criteria.

In this study, the survey participants were categorized into 4 groups according to disability type: Physical disabilities, Hearing and speech impairments, Visual impairments, and Neurological and mental disabilities. The findings reveal differences in the path coefficients of the relationship between

vocational training effectiveness and the opportunity for disabled individuals to find suitable employment, particularly between the Physical disabilities group and the others, including Visual impairments and Neurological and mental disabilities. These results suggest that, overall, individuals with physical or visual impairments tend to experience a stronger impact of vocational training effectiveness on their employment opportunities compared to other disability types. These results are consistent with previous studies by Narahariseti and Castro (2016), Marigu (2012), Boman et al. (2015), Boutros and Fakih (2023), and Ballo and Alecu (2023).

Table 5 Multigroup analysis results

Between groups	Coefficient difference	P-value
Physical disabilities - Hearing and speech impairments	0.279	0.000
Physical disabilities - Visual impairments	0.124	0.000
Physical disabilities - Neurological and mental disabilities	0.316	0.001
Hearing and speech impairments - Visual impairments	0.145	0.000
Hearing and speech impairments - Neurological and mental disabilities	0.122	0.175
Visual impairments - Neurological and mental disabilities	0.282	0.000

## 6. Conclusion

In conclusion, the findings of this study underscore the crucial role of various factors in enhancing the effectiveness of vocational training and improving employment opportunities for individuals with disabilities in Vietnam. The results highlight the significant positive impact of training facilities, teacher quality, training programs, and financial support on vocational training outcomes. Particularly noteworthy is the strong influence of training facilities, followed by teacher quality, in shaping the effectiveness of vocational training. Moreover, the study reveals that both vocational training effectiveness and job connections positively contribute to the opportunity for disabled individuals to obtain suitable employment. Furthermore, the examination of different disability types suggests that individuals with physical or visual impairments may benefit more from vocational training effectiveness in terms of employment opportunities compared to those with other disability types. Based on the findings, the study has proposed recommendations to improve the quality of vocational training and increase suitable employment opportunities for people with disabilities in Vietnam. However, there are certain limitations including the relatively small sample size and the non-probabilistic methods used to collect the data. In addition, the study was limited to Can Tho city while diverse living environments are likely to affect the perceptions and employment situations of people with disabilities. Therefore, expanding the scope and scale of research nationwide could be a promising avenue for future research efforts.

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