Factors Affecting The Quality Of Ethnic Minority Human Resources: A Case Study In The Central Highlands, Vietnam

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Abstract

The paper uses the survey data from 429 stakeholders who are ethnic minority with the role of workers and employers in the central highlands region of Vietnam. The partial least squares structural equation modeling is used to identify factors affecting the quality of ethnic minority human resources in this area. The findings indicate six important factors including the policies of human resource utilization, development training, and remuneration, income, working conditions, culture which all positively affect the quality of ethnic minority human resources in the region. Among them, the culture one was assessed to have the strongest impact, followed by the policy on using ethnic minority human resource. Conversely, the impact of policy on development training of ethnic minority human resources is the weakest. The standard error of the impact coefficients of independent variables on the quality of ethnic minority human resources in the central highland ranges from 0.025 to 0.042, which is a fluctuating level with a relatively narrow amplitude. The R-squared of the dependent variable measured by 4 component variables including attitude, knowledge, physical strength, and skill ranges from 0.575 to 0.838.

Keywords: *Impact factors, Quality, Human resources, Ethnic minorities, The Central Highlands.*

INTRODUCTION

Human is one of the most important resources, determining the development as well as the position of each country or [1]region (Darmawan et al., 2020; PHAM et al., 2022; Nguyen, T. C., Son, N. T., Ly, N. K., & Hanh, T. T., 2023). Therefore, Vietnam always pays attention to the human resources in general and ethnic minority resources in particular to adapt to the rapid development of society in the new context known as the industrial revolution 4.0 and the knowledge-based economy (Trinh, N. T., 2014; Kho, L. T., 2021; Trung, T., & Cuong, P. T. K., 2020; Trung, T., Binh, P. D., Thanh, N. T., & Thuy, L. P., 2020). According to Trung, T., et al., (2020), the ethnic minority human resource is defined as the total quantity, quality and structure of ethnic minority people with the criteria of physical, mental and spiritual strengths in the ethnic minorities' labor force and reserve workforce to create their capacity in the creative labor process. Therefore, the development of ethnic minority human resources is to create impacts on improving the ethnic minorities about physical, mental and spiritual strengths as well as nurturing them to become the workforce with higher qualifications, meeting the integration of the society.

The central highlands are a region with 05 provinces including Kon Tum, Gia Lai, Dak Lak, Dak Nong and Lam Dong. This is not only the region with the largest ethnic minority composition in Vietnam but also the only place where all Vietnamese ethnic and linguistic groups live together, with nearly 2.1 million people (accounting for about 37.6% of the

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region's population and 15.6% of the country's) (Ha, P. T. H. & Huyen, N. T. T., 2023). However, the human resources of ethnic minorities in the central highlands still have many limitations, especially in term of the quality. For example, the education level of this human resources is still low compared to the general index of the whole country. There are still many untrained workers whom mainly agricultural and simple workers. The awareness, skills, ability to adapt to new environments, manners, and discipline of ethnic minority workers are poor. The proportion of ethnic minority cadres participating in leadership and management in localities in this region is still low (Ha, P. T. H. & Huyen, N. T. T., 2023).

This paper aims to examine and discuss the factors affecting the quality of human resources of ethnic minorities in the central highlands region of Vietnam. More specifically, the research's contributions can fill existing gaps in the literature on human resource management. Therefore, this paper seeks to address the following two main research objectives (RO):

RO1: Identifying factors affecting the quality of ethnic minority human resources in the central highlands of Vietnam.
RO2: Assessing the impact of these factors on the quality of ethnic minority human resources.

The structure of the paper is presented as follows: The literature review points out the component of human resource quality as well as factors affecting the quality of human resources in general and ethnic minority human resources in particular. It also indicates the proposed research model and research hypotheses. Research methodology will be presented in the third section. The next section focuses on data analysis and discusses hypothesis test results. In the final section, some limitations and further research will be covered.

2. Literature Review and Hypotheses

2.1. Theoretical Framework

The quality of human resources in general is regulated by many factors: physical strength, mental strength, professional skill level, quality, creative capacity, labor productivity, coordination ability, other skills... In particular, the decisive factor to the quality of human resources is the level of knowledge, professional expertise and creativity (Kho, L. T., 2021). Accordingly, the quality of ethnic minority human resources includes physical strength (height, weight, working capacity, physical health status and mental health), spiritual strength (intellectual, educational, foreign language, professional level, skill level), mental strength (qualities, ideals, ethics, attitudes, manners, life skills, lifestyle) of ethnic minorities (Trung, T., & Cuong, P. T. K., 2020; Anh, H. N., 2020; Huong, N. T. G, 2019). Therefore, this paper has identified the factors constituting the quality of ethnic minority human resources in the central highlands provinces, consisting knowledge, attitude and skill, physical strength, in which:

The knowledge is reflected in the criteria of education and technical expertise of the ethnic minority workforce (Trung, T., et al., 2020; Trung, T., & Cuong, P. T. K., 2020; Anh, H. N., 2020).

The attitude and skill expressed by awareness, social understanding, life skills; dynamism and adaptation to new environments; labor behavior and discipline of the ethnic minority workforce (Trung, T., et al., 2020; Trung, T., & Cuong, P. T. K., 2020; Anh, H., N. 2020).

The physical strength expressed through the criteria of physical condition, stature, health and longevity of the ethnic minority workforce (Trung, T., et al., 2020; Trung, T., & Cuong, P. T. K., 2020; Anh, H. N., 2020).

2.2. Hypotheses

In the research of Trung, T., et al. (2020) on the foundational technologies of the Industrial Revolution 4.0 and the impact on ethnic minority human resource development in Vietnam, has pointed out that in order to develop ethnic minority human resources, it is necessary to

affect the quality of ethnic minority labor, which is expressed through three main criteria including mental, physical and spiritual strengths. Thus, the paper proposes a model of factors affecting the quality of ethnic minority human resources in the central highlands region of Vietnam as shown in Figure 1 bellowed. In which:
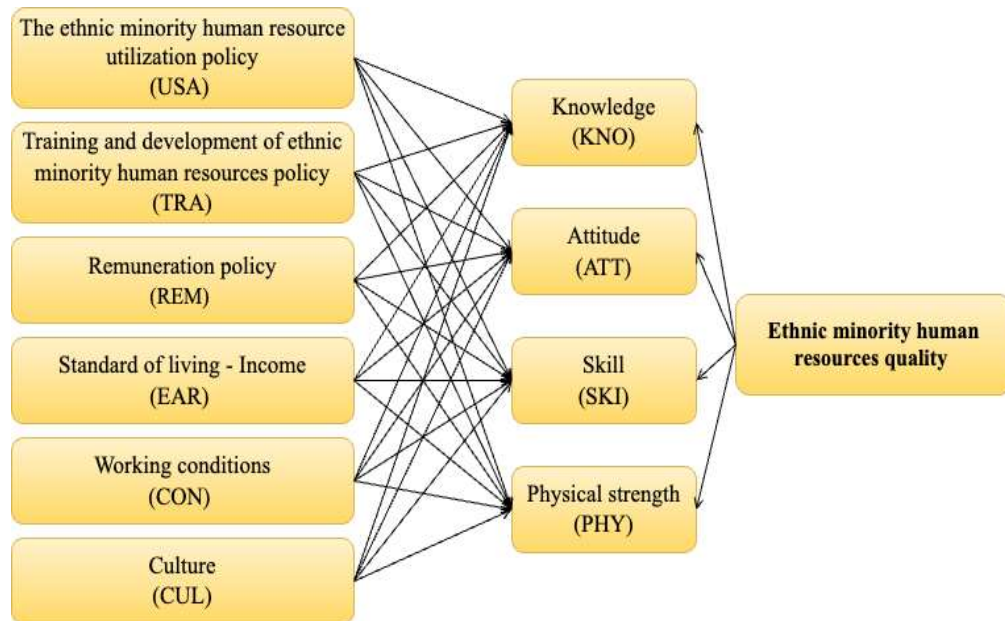
Source: Compilation of the authors

Figure1. The research model proposes factors affecting the ethnic minority human resources quality in the central highlands region of Vietnam

The policy of human resources utilization is reflected in the process of attracting and utilizing human resources to maximize the capabilities of this force (Diep, L. T. H., Ha, N. T. T., & Tam, L. T., 2023). The policy element of using ethnic minority human resources in the proposed research model is based on the study of Song, N., Hanh, P., Cuc, M., & Tiep, N. (2020). They looked at the factors affecting human resources for SMEs during the Fourth Industrial Revolution in Vietnam. The finding has shown 6 factors that have a stronger impact on the development of SME human resources such as: SME Human Resource Development Policy, System of training and vocational training institutions, Scientific and technological development, State and provincial policies on human resource development for SMEs, Business managers and personal employees. In particular, State and provincial policies on SME human resource development are the factor with the greatest influence on human resource development in Industry 4.0 in Vietnam. Furthermore, the research by Hang, N. P. T. (2017) on high-quality human resource development at Vietnam Oil and Gas Group by 2025, also pointed out that the policy of using high-quality human resources has a positive effect on the components constituting the quality of human resources. Specifically, if the policy of using human resources increases by 1% point, it will increase knowledge by 0.636% points, physical strength increased by 0.389% points, and attitude increased by 0.267% points.

Through training and development, employees acquire the necessary knowledge and skills to improve their professional qualifications and skills, so the quality of human

resources is improved, helping employees perform their jobs more efficiently and be able to adapt to changes (Chau, H. T. M., & Long, N. N., 2022). The research of Popli, G. S., Singh, V., & Shrivastava, R. (2012) discussed the role of education as a skill-building function for human resource development. They explore different techniques used to develop education linked to human resource needs in regional and national contexts. Besides, Hecklau, F., Galeitzke, M., Flachs, S., & Kohl, H. (2016) believed that in order to

develop human resources, it is necessary to focus on activities related to education, learning and professional training of individuals. Similarly, the research of Ta, H. T. T., Tran, T., & Nguyen, P. T. T. (2023) about the impact of the industrial revolution 4.0 on Vietnam's ethnic minority human resources, shown that to meet the new requirements of modern digital, Vietnam needs to train and retrain hard its workforce for building a contingent of cadres and civil servants to develop economic opportunities in ethnic minority areas. Hence, the paper has proposed an influencing factor is the policy of training and developing ethnic minority human resources in the research model.

Remuneration is support policies for employees including material incentives (salary, bonus, allowances, benefits) and non-material incentives (travel, gifts, promotion opportunities,...). Remuneration policies reflect interest in employees. From the perspective of the employer, if there are diverse and rich remuneration policies, it will contribute to improving the quality of life and spirit for employees (Chau, H. T. M., & Long, N. N., 2022). In addition, the research by Kho, L. T., (2021) shows that if a region or a local area does not have appropriate priority and remuneration regimes for ethnic minorities, it will not create motivation for them to study to improve their qualifications, and thereby would raise the quality of ethnic minority human resources. In addition, Hang, N. P. T. (2017) concluded that remuneration policies have different impacts on the constituent components of human resource quality. Specifically, when the remuneration policy for high-quality human resources increases by 1% point, skills will increase by 0.282% points. However, the remuneration policy has an inverse effect on knowledge, that is, when the remuneration policy for high-quality human resources increases by 1% point, it will reduce knowledge by 0.134% points. Therefore, the paper has proposed a group of remuneration policy factors that would have a positive or negative impact on the quality of ethnic minority human resources in the research model.

Wages, salaries or incomes generally help workers pay for daily living expenses to ensure a standard of living. If enterprises have a fair income payment system, appropriate salary policies will stimulate employees to work (Chau, H. T. M., & Long, N. N., 2022; Anh, N. T. K. 2017). As a result, it can affect the quality of human resources. Thus, the standard of living - income factor proposed in this research model would have a positive influence on the quality of ethnic minority human resources.

Employees will feel interested and comfortable when working in an environment with safe working conditions, full equipment, ensuring the benefits, health and life of employees (Chau, H. T. M., & Long, N. N., 2022). As a result, employees will feel secure which led them could improve work efficiency. Additionally, To, P. C. (2020) did research on factors affecting the quality of human resources in the tourism sector of Ba Ria – Vung Tau province in Vietnam, concluded that in the tourism sector, there are 17 factors affecting the quality of human resources, with the strongest variable being cooperation with training institutions, the weakest variable being job evaluation. In particular, the working environment also has a positive influence on the quality of human resources. Besides, Hang, N. P. T. (2017), showed that when working conditions increase by 1% point, it will increase the component of human resource quality which is attitude by 0.262% points. Therefore, the paper has proposed working conditions that have a positive impact on the quality of ethnic minority human resources in this research model.

Kho, L. T., (2021) conducted a research on the quality of ethnic minority human resources meeting the requirements of sustainable development in the Southwest region in Vietnam. The paper showed that the influences of ethnic minority culture and beliefs also create certain barriers to improving the quality of ethnic minority human resources.

In addition, the impact factor of culture on human resources, especially high-quality human resources conducted by Diep, L. T. H., et al (2023) showed that cultural traditions, customs and lifestyles are the basic source of formation of capacity and quality of human resources. Thus, it is inevitable to be influenced by the cultural traditions of the nation in which human

resources are the entity containing of that element. Therefore, the paper proposed a group of factors related culture that positively affect the quality of ethnic minority human resources in the research model.

Considering the overall quality of human resources in terms of physical strength (PHY), knowledge (KNO), skills (SKI), attitude (ATT), the factors that can affect to change those components of ethnic minority human resources in the central highlands region of Vietnam are proposed to include 06 groups of factors: ethnic minority human resource utilization policy (USA), training and development of ethnic minority human resources policy (TRA), remuneration policy (REM), standard of living - income (EAR), working conditions (CON), culture (CUL), with the following research hypotheses:

Hypothesis 1 (a, b, c, d): The USA has a positive impact on the quality of ethnic minority human resources through factors of KNO, ATT, SKI, PHY.

Hypothesis 2 (a, b, c, d): The TRA affects positively on the quality of ethnic minority human resources through factors of KNO, ATT, SKI, PHY.

Hypothesis 3 (a, b, c, d): The REM has a positive effect on the quality of ethnic minority human resources through factors of KNO, ATT, SKI, PHY.

Hypothesis 4 (a, b, c, d): The EAR positively influences on the quality of ethnic minority human resources through factors of KNO, ATT, SKI, PHY.

Hypothesis 5 (a, b, c, d): The CON has a positive influence on the quality of ethnic minority human resources through factors of KNO, ATT, SKI, PHY.
Hypothesis 6 (a, b, c, d): The CUL affects positively on the quality of ethnic minority human resources through factors of KNO, ATT, SKI, PHY.

3. Research Methodology

3.1. Data Collection

The research data was collected through interviews with randomly selected ethnic minority workers from institutions in the central highlands region of Vietnam. A total of 450 questionnaires were distributed to respondents and 429 valid questionnaires were collected and used for official analysis due to lack of or incomplete data. Therefore, the sample included 429 ethnic minority workers of different genders, working hours and fields of work in the central highlands region of Vietnam (see Table 1).

Table 1. Summary of Demographic Details

Group	Category	Frequency	Percentage
Gender	Female	202	47.1%
	Male	227	52.9%
Working seniority	Less than 5 years	53	12.4%
	5-10 years	102	23.8%
	10-15 years	166	38.7%
	Over 15 years	108	25.2%
Sectors	Public sector	249	58.0%
	Private sector	180	42.0%

Source: Compilation of the authors

3.2. Measurement Scales

The paper used a 5-point Likert scale to measure for all items taken in this survey. Respondents were asked to rate all items that strongly disagreed (indicated by 1) and strongly agreed (indicated by 5). The Likert scale has been widely used in quantitative studies and shown effectiveness in testing and evaluating hypotheses (Dhir et al., 2020; Do et al., 2021).

3.3. Data Analysis Technique

The authors used the PLS-SEM v3.3 tool to address research questions and evaluate research hypotheses. This method has been widely applied in the field of social sciences because it is convenient, flexible, and efficient with few samples (Hair et al., 2019).

4. Results and Discussion

The study identified dependent variables to measure the quality of ethnic minority human resources as: knowledge (KNO), attitude (ATT), skill (SKI), physical strength (PHY). The study also identified 6 important factors (including USA, TRA, REM, EAR, CON, CUL) affecting the quality of ethnic minority human resources (measured by KNO, ATT, SKI, PHY) in the central highlands region of Vietnam. Therefore, this study consists of 6 independent variables (USA, TRA, REM, EAR, CON, CUL), and 4 dependent variables (KNO, ATT, SKI, PHY). The research model focuses on 24 hypotheses divided into 6 groups with 67 items (shown in Figure 2 and Figure 3). This study uses Smart-PLS software to evaluate the hypotheses mentioned above.

4.1. Evaluation of the Measurement Model

First, the measurement model was evaluated and presented in Figure 2 and Table 2. Hair et al. (2017) suggest that the outer loading coefficient needs to be greater than or equal to 0.708 for the observed variable to meet requirement. The results in Figure 2 show all loading coefficient of the observed variable are greater than 0.708. Thus, these 67 observed variables are satisfied which showing the reliability of the model. All 67 of these observed variables are included in the next step of analysis.
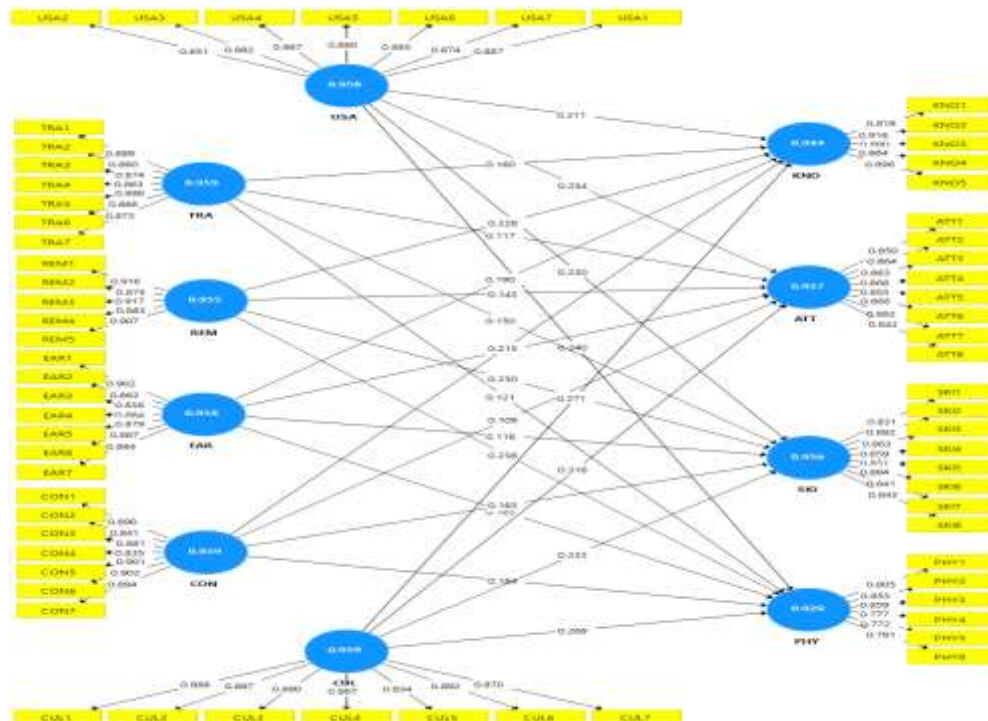
Source: Results of data processing using PLS-SEM v3.3

Figure 2. The estimated measurement model

Table 2. Results of Testing the Scale Reliability

Factor	Cronbach's Alpha	Composite Reliability (CR)	Average Variance Extracted (AVE)
US	0.949	0.958	0.766

A			
TRA	0.950	0.959	0.770
REM	0.941	0.955	0.810
EAR	0.949	0.958	0.766
CON	0.950	0.959	0.771
CUL	0.951	0.959	0.772
KNO	0.925	0.944	0.771
ATT	0.949	0.957	0.738
SKI	0.947	0.956	0.730
PHY	0.897	0.920	0.656

Source: Results of data processing using PLS-SEM v3.3

In the next step, we evaluate the reliability of the scale through two main indicators, Cronbach's Alpha and Composite Reliability (CR). Hair et al. (2019) suggest that these two indicators must be greater than 0.7 for the scale to be reliable. In this study, the results of structural analysis showed that 10 groups of factors all have these 2 indicators greater than 0.7, so all 10 structural groups are satisfactory.

Third, we will consider the average variance extracted (AVE). Hair et al. (2019), Dhir et al. (2020) suggest that a scale will reach a convergent validity if the AVE is 0.5 or higher. As shown in Table 2, all AVE are higher than 0.5. Thus, the 10 scales of this study achieve convergent validity and are qualified to explain the research model.

4.2. Evaluation of the Structural Model

First, the authors test whether the model violates multicollinearity or not using the variance inflation factor (VIF). Hair et al. (2019) suggested that the model may violate multicollinearity between variables if the VIF coefficients are greater than 3. The results of this study indicate that this model has the VIF ranging from 1.380 to 2.002 (less than 3), thus there is no multicollinearity.

Second, the authors evaluate the direct impact relationship in the model. The results in Table 3 show that all relationships (24 hypotheses) have P Values < 0.05. Thus, it can be concluded that these effects are all statistically significant and all 24 hypotheses are accepted. Among them, the CUL has the highest impact factor, which explains the CUL having the greatest influence among the 6 independent variables of the model.

Third, the R-squared value helps the author evaluate the explanability of the structural model. The R-squared (or adjusted R-squared) ranges from 0 to 1. The closer it is to 1, the more the independent variables explain the dependent variable (Hair et al., 2019; Henseler et al., 2016). ATT, KNO, PHY, and SKI are four dependent variables in the structural model. According to the results in Table 4, the adjusted R-squared of the 4 observed variables has KNO as the highest (0.838), proving that the independent variables have explained 83.8% of the variation in the KNO variable, the remaining 16.2% is due to other factors not mentioned in this model. The adjusted R-squared of ATT, PHY and SKI are 0.581, 0.772 and 0.663, respectively which corresponding to the independent variables explaining 58.1%, 77.2%, 66.3% of the variation of the dependent variables. Thus, we have a structural model of factors affecting the quality of ethnic minority human resources

(Figure 3).

Table 3. Results of Direct Impact of the Relationships

Relationships	Impact coefficients	Standard error (S/E)	Test value (T)	Probability Value (P Values)
CON -> ATT	0.109	0.037	2.905	0.004
CON -> KNO	0.215	0.030	7.222	0.000
CON -> PHY	0.184	0.032	5.648	0.000
CON -> SKI	0.163	0.036	4.581	0.000
CUL -> ATT	0.318	0.040	7.926	0.000
CUL -> KNO	0.271	0.026	10.523	0.000
CUL -> PHY	0.268	0.027	9.762	0.000
CUL -> SKI	0.233	0.037	6.278	0.000
EAR -> ATT	0.121	0.033	3.637	0.000
EAR -> KNO	0.190	0.024	7.907	0.000
EAR -> PHY	0.165	0.028	5.978	0.000
EAR -> SKI	0.118	0.031	3.754	0.000
REM -> ATT	0.143	0.037	3.828	0.000
REM -> KNO	0.228	0.025	9.237	0.000
REM -> PHY	0.238	0.027	8.672	0.000
REM -> SKI	0.230	0.036	6.456	0.000
TRA -> ATT	0.117	0.036	3.257	0.001
TRA -> KNO	0.160	0.028	5.680	0.000
TRA -> PHY	0.121	0.029	4.171	0.000
TRA -> SKI	0.150	0.033	4.483	0.000
USA -> ATT	0.234	0.042	5.634	0.000
USA -> KNO	0.211	0.030	6.971	0.000
USA -> PHY	0.240	0.032	7.407	0.000
USA -> SKI	0.230	0.038	6.002	0.000

Source: Results of data processing using PLS-SEM v3.3

Table 4. Explanatory Level of Relationship between Variables

	R-squared	Adjusted R-squared
ATT	0.581	0.575
KNO	0.840	0.838
PHY	0.772	0.769
SKI	0.663	0.658

Source: Results of data processing using PLS-SEM v3.3
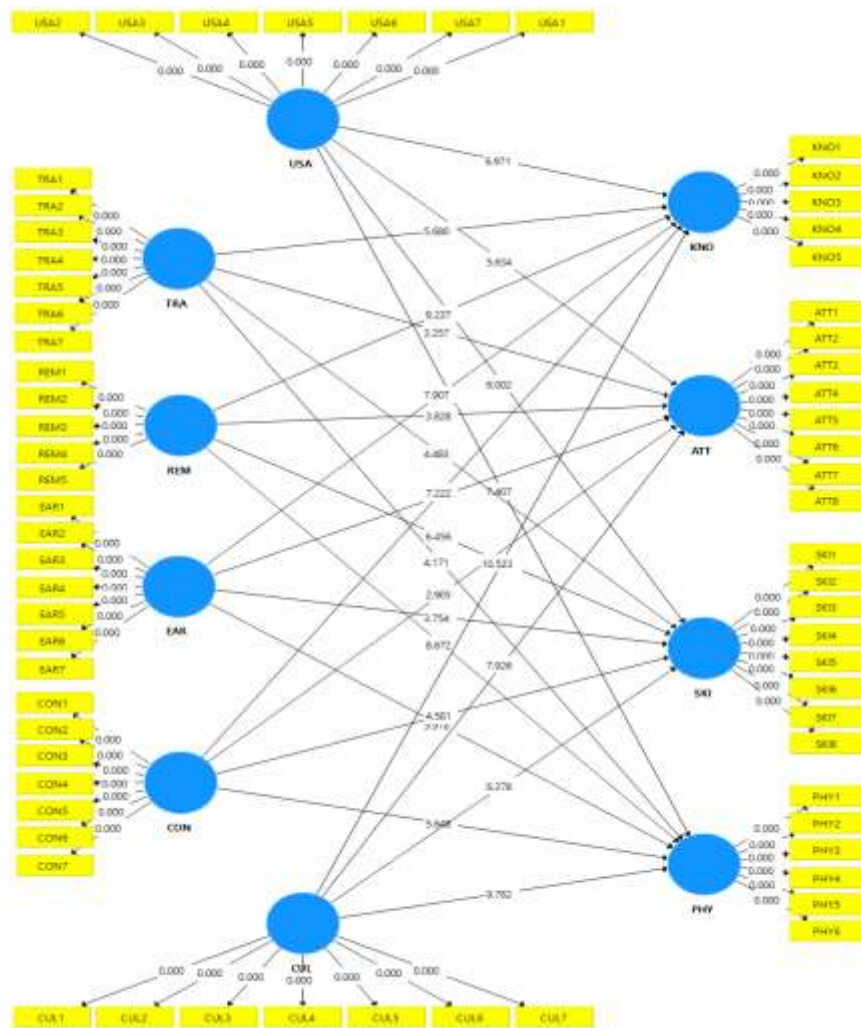
Source: Results of data processing using PLS-SEM v3.3

Figure 3. Structural model of factors affecting the quality of ethnic minority human resources

4.3. Discussions

The direct relationship between USA, TRA, REM, EAR, CON, CUL and the quality of ethnic minority human resources. According to the research results, all 24 hypotheses are supported because those p-values are significant (threshold < 0.05) (Hair et al., 2019).

The findings indicate that six important factors namely human resource utilization policy, training and development policy, remuneration policy, income, working conditions and culture all positively affect the quality of ethnic minority human resources. In particular, cultural factors play the most important role in estimating the quality of human resources according to this empirical study (the impact coefficient of CUL on 4 dependent variables ATT, KNO, PHY, and SKI is the largest, with 0.318, 0.271, 0.268, and 0.233, respectively).

The findings on the role of these factors in human resource quality are consistent with the results in previous studies. For example, previous studies have demonstrated the positive impact of the training and development factor on the quality of human resources in the context of the construction industry in Nigeria (Adeagbo & Oyemogum, 2014) and the construction industry in India (Sagar & B.A.Konnur, 2017); in enterprises operating in the service sector of Vietnam (Hanh, P. T. M., 2020). Findings on the positive impact of Human Resource Policy issues such as empowerment or job placement on human resource development are relevant to research findings in a variety of contexts, such as in the context of the Arab world (Al-Sayyed, N. M., 2014); in the field of education in China

(Mehrabian et al., 2011). It's not surprising that the important role of income and remuneration in relation to human resources quality has been highlighted by many authors in the results of their previous studies, such as a research in the field of Railway in Australia (Azizi et al., 2021); or the hotel industry in Iran (Aghdaie et al., 2020). The role of the working conditions factor has also been demonstrated in the education sector in Indonesia (Irawan et al., 2021); in the Foreign Invested Enterprises in Industrial Parks in Vietnam (Ha et al., 2021). The impact of cultural factors on the quality of human resources has been confirmed in a number of previous studies, such as at the U.S. organizations (Stone et al., 2007); Italian companies in China (Pauluzzo, 2010); the results of this study are consistent with a global empirical study across four cultural regions – Asia, Europe, North America, and Latin America (Karin et al., 2014). However, the studies mentioned in this section almost measure the quality of human resources through factors such as work performance, job satisfaction, not groups of factors KNO, ATT, SKI, PHY.

On this topic, our research results also point out some differences compared to other studies that have been conducted in the context of emerging economies. Specifically, related to some studies in Indonesia (Irawan et al., 2021), India (Sagar & B.A.Konnur, 2017), or China (Mehrabian et al., 2011), they are interested in various factors affecting the quality of human resources and identify the most influential ones that differ from our paper's results. This difference can be explained based on different studied country contexts, selected disciplines and interviewees, which is reason to point out the different findings (Hitka et al., 2021; Norbu & Wetprasit, 2021). Specifically, this paper studied ethnic minority workers in Vietnam's central highlands region, which are economically disadvantaged. The labors lack of work experience (Nguyen et al., 2023), they often have difficulty starting a job with low income. Importantly, this study suggests that managers in Vietnam need to pay more attention to cultural influences to improve the quality of ethnic minority workforce. In addition, a number of other factors affecting the quality of human resources need special attention including the utilization and remuneration policies for ethnic minority workers in the central highlands of Vietnam because this significantly affects their quality.

5. Conclusions, Limitations, and Future Research

5.1. Conclusions

The central highlands is the region with the largest ethnic minority composition in Vietnam, with nearly 2.1 million people, accounting for about 37.6% of the region's population. Ethnic minority human **resources** in the central highlands region still have many limitations such as low education levels, many untrained workers, poor skills and ability to adapt to the new environment,... Based on data collected from the survey of 429 stakeholders, the SEM analysis results show all six important factors, namely human resource utilization policy, development training policy, remuneration policy, income, working conditions and culture, positively affect the quality of ethnic minority human resources in the central highlands region of Vietnam. In which, the culture variable (CUL) was assessed to have the strongest impact, the following variable was the ethnic minority human resource utilization policy (USA). Conversely, the development and training policy for ethnic minority human resources (TRA) has the weakest impact. The standard error (S/E) of the impact coefficients of the independent variable on the variable of ethnic minority human resources quality in the central highlands ranges from 0.025 to 0.042. It is a relatively narrow range fluctuation.

5.2. Limitations

The findings show that all six important factors including human resource utilization policies, development training policies, remuneration policies, income, working

conditions and culture positively influence the quality of ethnic minority human resources in the central highlands region of Vietnam. The R-squared of the affected variable ranges from 0.575 to 0.838. Where the R-squared of the ATT variable is 0.575, the R-squared of the KNO variable is 0.838, the R-squared of the PHY variable is 0.769, and the R-squared of the SKI variable is 0.658. Thus, the research model has not explained up to 42.5% of the impact of other factors on the attitude aspect of ethnic minority human resources in the central highlands region. It also has not explained the impact of other factors on the knowledge aspect, the physical strength and skill aspect of ethnic minority human resource in this region with 16.2%, 23.1% and 34.2%, respectively.

The results of selecting variables to include in the model have been referenced from many related studies. However, it is inevitable that significant and meaningful variables have not been included in the research model. The R-squared of the model ranges from 0.575 to 0.838.

The statistical division of study samples has only been considered in terms of gender, working seniority, and working sector. It has not further considered some other important aspects such as the human resources scale of each location, religion, education level, etc. that may reduce the representativeness of the collected samples in the overall reflection.

5.3. Future Research

- Differences in the development of ethnic minority human resource and human resource in general in the central highlands region.
- Comparison the differences in the content of factors affecting the development of human resources in the central highlands region between ethnic minority and majority ones.

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