### MINISTRY OF EDUCATION AND TRAINING UNIVERSITY OF SOCIAL LABOR

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### EFFICIENCY OF HUMAN RESOURCE OF VIETNAM ELECTRICITY GROUP

Specialized HR Code: 9340404

SUMMARY OF THE THESIS OF DOCTORS IN ECONOMICS

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#### **INTRODUCTION**

#### 1. The objective necessity of the study

In order to promote their strengths, State-owned economic groups need to make efforts in all aspects, in which, it is impossible not to mention the investment in human resources and human resource training. Because human resource training is an activity that helps State-owned economic groups maintain competitive advantages, creating a difference in human capital compared to organizations of other economic sectors. Electricity of Vietnam (EVN) can be considered as a clear example of this.

Every year, EVN has trained and sent to train thousands of officials and employees (employees) in many forms. In 2019, EVN organized 312568 focused learners and 318250 turns of E-learning learners. The above data shows that human resource training at EVN annually has a very large volume and is determined to play an important role in EVN's production and business activities. However, whether the "huge" amount of investment listed above is accompanied by "effective", this is a question that needs to be answered. Meanwhile, it can be said that it is relatively difficult to identify an organization that has implemented effective training. In theory, Kirkpatrick's training effectiveness evaluation model is the most popular and widely used model. However, even he himself considers it very difficult to evaluate at levels 3 and 4.

Aware of the above problem , EVN 's Board of Directors , through the guiding document and the training implementation process, has clearly shown the will and determination in ensuring the quality of human resource training. . Ensuring the effectiveness of training at EVN is also a view that is consistent with the Party's confirmed practice of enhancing the operational efficiency of state-owned economic groups. Resolution No. 12-NQ/TW dated June 3, 2017

of the 5th Conference of the Party Central Committee, term XII, defined "Training, retraining, assessment and appointment of cadres in enterprises State industry still has many limitations". However, the reality at EVN shows that the overall effectiveness of human resource training has not been calculated specifically. In addition, the current method of evaluating the effectiveness of EVN 's programs focuses more on assessing the organization and the trainees ' feelings about the training program , rather than on the evaluation of the training program. a focus on its positive effects on relevant subjects . \_\_\_\_\_

Theoretically, the evaluation of training effectiveness has always been a big issue that has attracted the attention of researchers and built many evaluation models . However, along with the advent of models is always skeptical and difficult to apply in practice. Even Kirkpatrick himself considers it very difficult to evaluate at levels 3 and 4. Another example is Phillip's ROI model, which is also mentioned a lot when mentioned . to the issue of profitability when investing in human resource training. However, solving this problem is extremely difficult because it is very difficult to extract the cause of the increase in profit that comes from training or not. This fact shows a large gap between theory and practice, which requires researchers to build a set of assessment tools with high applicability on the effectiveness of human resource training in the field of training. organization.

With the above observations about the actual situation, I would like to choose the topic: "Effectiveness of human resource training of the Electricity of Vietnam" to study thoroughly and comprehensively from theory to practice. on the effectiveness of human resource training of EVN Group. From there, there are specific and objective recommendations to contribute to improving the investment efficiency for current human resource training activities.

#### 2. Research objectives and questions

#### 2.1. Objectives of the study

- Building and systematizing the theoretical basis of human resource management efficiency

- Proposing a research model to evaluate EVN 's human resource efficiency

- Analysis of factors affecting the economic efficiency

- Evaluation of the level of efficiency in human resource management of EVN

- Proposing solutions to improve EVN 's human resource efficiency

#### 2.2. Research question

- What is human resource efficiency, by what criteria is it evaluated ?

- For EVN , what are the appropriate human resource efficiency evaluation criteria that should be used? How is EVN 's human resources headquarters today ?

- What is the current state of factors affecting human resource efficiency at EVN ?

- How to improve EVN 's current human resource efficiency?

#### 3. Object and scope of research

The research object of the thesis is "Effectiveness of human resource training of EVN".

Regarding the scope of research, the research space is the headquarters of the Group and a number of affiliated companies. The thesis was researched and collected data from 2016 - 2020. Primary data was done in June 2020. The thesis only studies the issue of human resource training for the workforce.

#### 4. Research methods and data sources

The content of the thesis is researched by combining the use of quantitative and qualitative methods

#### **5.** New Contributions

#### 5.1. Contribution to theory and research methods

The thesis has built a new research model to help ensure the appropriateness and feasibility when evaluating the training effectiveness of EVN. In addition, the content of the thesis focuses on research and emphasizes on endogenous factors affecting training effectiveness. In the process of building the scale, the thesis has built 2 new indicators to ensure the coverage of the research issues.

#### 5.2. New contributions to practice

Through surveying 497 opinions of EVN's employees, the thesis proves that the effectiveness of human resource training is affected by: trainee 's attitude, training content, and training. organizational learning and use of human resources after training. From the above results, organizations will have more accurate decisions in human resource training activities through assessing its effectiveness as well as its influence on the organization's goals. In the social aspect, the thesis results make judgments and assessments about the relationship between ensuring training effectiveness and the meaning it brings to society. This is also a new approach that needs special attention with Stateowned economic groups.

#### 6. Dissertation layout

In addition to the introduction and conclusion, the thesis is presented in 5 chapters, specifically as follows: Chapter 1. Research overview; Chapter 2. Theoretical basis for the effectiveness of human resource training in the organization; Chapter 3. Research methods; Chapter 4. Research results; Chapter 5. Discussion of research results and some recommendations.

#### CHAPTER 1. RESEARCH OVERVIEW

#### 1.1. Effective and effective research projects in human resource training

Summary of a number of research works on efficiency such as: Duong Van Chung (2003); Nguyen Dinh Hau (2012); Do Huyen Trang (2013); Duong

Van Thang (2013); Baldwin and Ford (1988)... show different arguments about efficiency. The selection of an effective approach should be based on many factors to ensure the reasonableness and suitability with the objective conditions of the research object.

Regarding the effectiveness of human resource training, domestic and foreign scientists have conducted a lot of research, in which, most of them are divided into three research trends as follows:

Trend 1: focus on building and perfecting the evaluation model. These studies focus mainly on building a theoretical model and testing it. Most of these studies come from foreign authors such as: Kaufman & M. Keller (1994), Jack J. Phillips (1996); Mohammed Saad and Norsiah Binti Mat (2013); Karatas Hakan and Fer Seval (2011)...

Trend 2: Applying the training effectiveness assessment model into practice. focus on model analysis, select a specific research model such as: HomKlin (2014), Dinh Thi Hong Duyen (2015); Shepherd Dhliwayo, Lilian Kerubo Nyanumba (2014)

Trend 3: the evaluation of practical effectiveness is based on the author's own point of view and approach such as: Le Trung Thanh (2005); Hoang Xuan Hiep (2009); Doan Duc Tien (2012);

Thus, with different approaches, it can be seen that the current research works on the effectiveness of human resource training are mainly focused on foreign projects. In Vietnam, the effectiveness of human resource training has also been mentioned and approached in research works in recent years, however, in the way of assessing, approaching and using the evaluation model, there are still some shortcomings. The gap makes it difficult to apply in practice or improve the theoretical basis of human resource training effectiveness.

#### 1.2. Studies on factors affecting the effectiveness of human resource training

5

First, it should be affirmed that the factors affecting human resource training can directly affect the way of learning, teaching, and organizing training programs, and also change the effectiveness of human resource training. Therefore, the factors affecting human resource training also affect the effectiveness of human resource training.

In addition, a number of individual factors that directly affect the effectiveness of human resource training are also mentioned directly by some authors, prominent among them are: Haslinda & Mahyuddin (2009); Dinh Thi Hong Duyen (2015); BK Punia & Saurabh Kant (2013); Ehsan Saeed Idrees Yaqoot et al (2017);

As such, there are many factors that can affect training effectiveness. Within the scope of the research work, with many limited resources, the PhD student's task is to find out the main factors affecting the effectiveness of human resource training at EVN and study the actual situation of those factors. Currently.

#### **1.3.** Research gaps and opportunities of the thesis

#### 1.3.1. Review of related studies

An overview of research works related to the topic shows that there are certain differences between the effective approach to the problem and the effectiveness of training. The review study shows that the views and arguments of the schools of training effectiveness and efficiency evaluation have certain positive points and limitations.

For the problem of studying the factors affecting the training effectiveness, researchers need to choose the factors that really have the strongest impact on the training efficiency in the period they study. Therefore, the results of studies on factors affecting human resource training have only short-term significance and are consistent with the research context. This statement is also consistent with most current research works when most authors only choose 4-5 influencing factors for a research project.

#### 1.3.2. Research gap

An overview of the studies shows that among the studies on the effectiveness of human resource training in corporations and industries in Vietnam, it only stops at the level of reflecting the current training situation, analyzing the current situation. training from a qualitative perspective. In a few studies that have measured training effectiveness, it is often based on the Kirkpatrick model. Meanwhile, this model increasingly reveals many limitations when applied. Moreover, with the unique characteristics of a State-owned corporation like EVN, which is a large organization with far-reaching influence on the whole society, if the Kirkpatrick model is used, training effectiveness is demonstrated through responsibility. society has not been mentioned.

For EVN Group alone, the effectiveness of human resource training as well as the issues of human resource training in EVN Group have not been really interested in research. Meanwhile, in the orientation of the Party and State, as well as the leadership of EVN, they all pay great attention to the issue of ensuring training effectiveness. This fact shows a huge gap between opinion and reality.

### CHAPTER 2. THEORETICAL BASIS ON THE EFFICIENCY OF HUMAN RESOURCES IN THE ORGANIZATION

#### **2.1. Some related concepts**

The content of the thesis introduces some of the following concepts:

- "Human resources are resources inside each person".

- "Human resource training is a combination of organized activities aimed at creating a change in attitude, behavioral capacity, and professional capacity in a positive direction for employees, helping the organization to effectively use human resources and accomplish the set goals". - "Effectiveness is the good result brought back to the subjects through the process of influencing and changing the input factors to achieve the goal of the output"

- "Effectiveness of training is the result of the training process, whereby this training process brings about changes in knowledge, skills, attitudes of learners and the ability to apply it to specific jobs contributes to positive results in the activities of training - related subjects".

#### 2.2. Content of effective human resource training

## 2.2.1. Researching models to evaluate the effectiveness of human resource training

The content of the thesis has studied 7 training effectiveness evaluation models, including: Kirkpatrick model; CIPP model; CIRO model; Phillip's evaluation model; Kaufman's model; HRD evaluation search model; Brinkerhoff's six-stage model

Research on training effectiveness evaluation models shows that the evaluation criteria given in the models also have their own advantages and limitations. Even the most popular model today, the Kirkpatrick model, has its own limitations. Therefore, the choice of which model to use in practice should be based on many factors such as leadership views, business conditions, objectives of the assessment, allocated funds for operations, etc.

#### 2.2.2. Select and develop training effectiveness measurement criteria

Based on the model research process, combined with the same view on training effectiveness, the researcher selected 3 groups of criteria to evaluate training effectiveness:

- *Effective training for individuals*. The effectiveness of training for individuals is essentially the change in knowledge, skills and attitudes of students after participating in training programs, these changes will help employees perform their current jobs. in a more efficient way

- *Effective training for the organization*. Training effectiveness for the organization is an important level in the evaluation of training effectiveness. Training effectiveness for the organization is what the organization gains by organizing human resource training activities. However, within the scope of the thesis, the NCS does not take into account the costs and economic efficiency obtained. Therefore, the issues between investment return ratio or ROI ratio are not addressed in this thesis. The content of the thesis only focuses on assessing the changes in EVN's production and business results in the period 1996 - 2020, but not on the causes of those changes .

- *Effectiveness of training for society*. The effectiveness of human resource training for society is understood as the benefit that the organization brings to society and customers through human resource training activities.

#### 2.3. Factors affecting the effectiveness of training

The thesis has evaluated and made comments on the factors affecting training effectiveness. In which, the influencing factor belongs to the content of training which is a characteristic point when studying the effectiveness of training. These can be considered as intrinsic factors affecting the efficiency of the island. The nature of these factors is that they can directly affect and change the effectiveness of training. Some prominent factors in this group can be mentioned: Learning motivation, post-training utilization, training program design, organizational learning culture, working environment, personal characteristics.

#### 2.4. Research model and research hypothesis

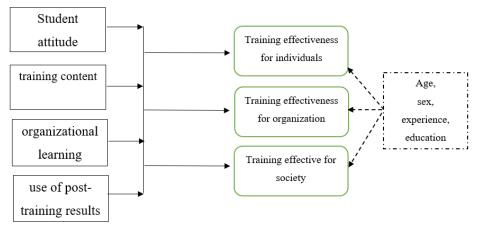
### 2.4.1. eh ? Official research model on the effectiveness of human resource training of EVN.

The research model of the PhD student is as follows:

Dependent variable: Human resource training effectiveness for individuals, training effectiveness for organizations; effective for society

Independent variables: Student attitude, training content, organizational learning culture and use of post-training results.

Control variables: Age, sex, experience, education.



(Source: proposal of NCS)

Diagram 2.2. The author's research model on EVN's human resource management system

#### **CHAPTER 3. RESEARCH METHODS**

#### **3.1. Research process**

The PhD student's research process has 10 steps, in order to ensure the effectiveness of the thesis, the PhD student comes from the process of overviewing the issue he/she is interested in to find research gaps. In the process of organizing and implementing, PhD students focus on quantitative research, so this process is separated into two phases: pilot investigation and large-scale investigation. Along with that, qualitative research is also used appropriately to ensure that all aspects of human resource training effectiveness are covered.

#### 3.2. Research Methods

#### 3.2.1. Qualitative research methods

The method used by the NCS in the qualitative research is to interview experts and employees of EVN. Specifically, NCS interviewed 4 experts and 5 managers and staff in charge of human resource training of EVN. The interview process was built into two stages: preliminary qualitative interview and additional information interview The number of interviewees was determined by the PhD student based on critical method ( the interviewees could not add new features of the problem of effectiveness of human resource training)

#### 3.2.2. Quantitative research

Quantitative research was carried out in 6 steps. After developing the scale and designing the questionnaire, the researcher consulted experts to remove and build some observed variables. These variables were tested by NCS with 52 votes. After running Cronbach'alpha analysis to test the reliability and suitability of the observed variables was built.

The phase of the large-scale investigation was carried out by selecting the survey sample, combining 3 formulas to calculate the survey sample, and the researcher obtained the minimum survey sample of 383 votes. With an estimated 80 - 85% of valid and usable answer sheets. Thus, the total number of votes to be distributed is: 459 votes. To survey 459 votes, NCS selected 5 typical companies, ensuring coverage of EVN's main business lines.

After collecting and processing online votes, the author collected 497 votes. The statistics of the sources of the survey questionnaires are as follows:

	Plan	Ratio	Reality	Ratio	% implement the plan
Corporate Office	120	26.09	124	24.95	103.33

 Table 3.9 . Statistics of the source of survey questionnaires

Electricity trading					
company	90	19.57	97	19.52	107.78
Peace Hydropower					
Company	90	19.57	103	20.72	114.44
Southern Power			ninety		
Corporation	90	19.57	four	18.91	104.44
Electrical					
construction					
consulting joint stock					
company I.	70	15.22	79	15.90	112.86
Total	460	100.00	497	100.00	108.04

(Source: NCS compiled from survey)

#### 3.3. Information collection and processing

#### 3.3.1. Collecting and processing preliminary qualitative information

Preliminary qualitative interviews help researchers have a basis to choose more accurately the factors affecting the training effectiveness as well as the perceptions of the interviewees . on training effectiveness and training effectiveness measurement. In addition, the selection of experts with experience working in the field of training and academic research also gives the researcher the opportunity to consult opinions and how to build observed variables for the scale.

## **3.3.2.** Collecting and processing information in preliminary qualitative research

After collecting and encoding votes, NCS used Cronbach 's Alpha reliability analysis method and discovered EFA. The process of encoding and processing data on the software shows that the coefficients of Cronbach 's Alpha coefficient are greater than n 0.7. This helps the researcher to confirm that the scales are in good and very good use. However, the observed variable "I have planned on how to use my new skills/knowledge when I return to work" has an overall correlation coefficient of <0.3. Therefore, this observed variable should be removed when conducting the official survey.

#### 3.3.3. Collect and process official quantitative information

NCS conducted an official survey and collected 497 valid questionnaires. The survey form, after being coded and entered, is analyzed by the following techniques: Descriptive statistics; Cronbach's Alpha reliability analysis; EFA exploratory factor analysis; Confirmatory factor analysis of CFA; SEM structural model analysis. In the process of performing quantitative analysis techniques, in order to ensure the accuracy of the statements, the researcher will use the standards and requirements established. Published in outstanding research works of Hoang Trong, Chu Nguyen Mong Ngoc (2008); Hair et al (2006).

#### 3.3.4. Additional qualitative information collection and processing

Tthe quantitative research process and preliminary results were obtained, the researcher collected more qualitative information in order to supplement and confirm the conclusions of the qualitative study. Through the assessment and comments of experts, the managers of EVN and NCS can confirm and strengthen the judgments, thereby, creating a solid premise in making decisions. solutions suitable to the context and development orientation of EVN in the coming time

#### **CHAPTER 4. RESEARCH RESULTS**

#### 4.1. About Vietnam Electricity Corporation

Vietnam Electricity was formed on June 22, 2006 according to Decision No. 147/QD-TTg of the Prime Minister on the pilot project to form the Group. On February 28, 2018, the Prime Minister issued Decree No. 26/2018/ND-CP on the Charter of organization and operation of Vietnam Electricity.

Regarding organizational structure, after 12 years, counting from 2003 implementing the renovation of state-owned enterprises, in 2015 the

organization of the Electricity of Vietnam was rearranged into 4 groups: Group, Unit affiliated position of the parent company (EVN); subsidiaries and other companies in which EVN holds 50% of the charter capital or otherwise controls.

Along with ensuring electricity for socio-economic development, EVN's production and business revenue in this period continued to increase, averaging over 16%/year. From 2010 to now, the Group's production and business activities have continued to develop sustainably, preserve and develop capital. Total assets of the Vietnam National Electricity Group by the end of 2019 were VND 721,460 billion (29 times higher than in 1995). Annual profitmaking production and business situation, fully paying the budget according to the provisions of law.

EVN's human resources tend to decrease over the years, this is the result of streamlining the apparatus and determined to fulfill the promise of EVN's Board of Directors that it will not increase the workforce until the end of 2020. The professional level of EVN's human resources is relatively high. The Group has a lot of technical doctorates, economics doctors as well as masters. Untrained workers with vocational training qualifications at EVN account for a very low percentage

## **4.2.** Analyzing the actual situation of EVN 's human resource training effectiveness assessment activities

EVN's human resource training activities are regulated in Regulation No. 833/QD-EVN on Training and Development of Human Resources in the National Electricity of Vietnam issued on July 12, 2018. Basically Evn's training activities are carried out quite methodically and diversely with many forms and training methods

Regarding the evaluation of training effectiveness of EVN, at present, EVN evaluates the effectiveness of human resource training by assessing the

way in which it is organized and the evaluation of training results. In addition, at the end of each year, the staff in charge of human resource training of the Group makes a summary report on the human resource training activities of EVN during the year. The content of the report provides basic statistics on specific training activities, but the evaluation criteria for effectiveness are almost nonexistent. In addition, the report also only focuses on a number of key training programs, other training programs are not listed specifically. The reason for this, according to the expert in charge, is that the amount of training provided by EVN is too large, making it difficult to further synthesize the above data for EVN, which is unnecessary.

### **4.3.** Quantitative analysis results on the effectiveness of human resource training of EVN.

#### 4.3.1. Descriptive statistics

4.3.1.1 The actual situation of trainees' attitude factors affecting the training effectiveness of EVN.

Regarding the student attitude factor, according to the survey results, it can be seen that basically the student attitude factor at EVN reached 3,3826 points, reaching an above average level. This shows that the attitude of students at EVN about training activities is relatively enthusiastic, and believes in training activities at the Company. However, the above average level is not yet high. Specifically, if we consider 3 as the average value of the Likert scale, the above average level in this factor is only 0.3826 points.

4.3.1.2. The actual situation of training content factors affects the training effectiveness of EVN.

Regarding the training content factor, according to the survey results, it can be seen that the training content factor has a relatively good rating, with an average of approximately 3,5018 points. Thus, it can be seen that this is a factor that positively affects the effectiveness of human resource training of EVN. All observed variables are approximately .5 points, the highest observed variable is the appropriateness between training content and daily work reaching 3,751 points.

4.3.1.3. The actual situation of learning culture factors at the organization affects the training effectiveness of EVN.

Regarding the learning culture factor of the organization, the average score of EVN's learning culture factor was just above average and did not make a difference (3,4512 points ). This can be considered as a relatively surprising thing because according to qualitative interviews, human resource training of EVN has received great attention from leaders at all levels in recent years. The score is just 0.4512 points higher than the average score, which shows that EVN's learning culture needs to continue to be built so that it can truly become a positive factor contributing to the effectiveness of EVN's human resource training.

# 4.3.1.4. The actual situation of factors used after training affects the training efficiency of EVN.

The average score of the factor reached 3,4672 points, 0.4672 points higher than the average score. In 7 observed variables, it can be seen that the results are divided into 2 directions quite clearly. The statements related to the awareness and determination of employees in using the results after training are relatively high, the average score is from 3.5 to 3.6. Meanwhile, the comments related to the organization's facilitation for issues related to post-training use are not really good, about 3.4 points. This shows that, although the factor of using human resources after training has quite good results, this result is largely due to the self-consciousness of each employee.

#### 4.3.2. The results of the analysis of the reliability of the scale

#### 4.3.2.1. Analysis of Cronbach's Alpha

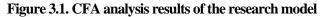
The results of Cronbach's Alpha analysis show that all remaining observed variables are accepted.

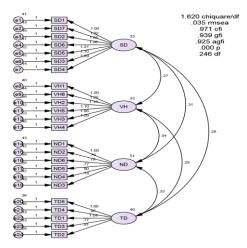
#### 4.3.2.2. EFA analysis

After Cronbach 's Alpha analysis, the observed variables continue to be analyzed for exploratory factor EFA, showing that there are 4 variables extracted with the criterion eigenvalue greater than 1, Method The extracted error is 56.727% > 50%, Sig < 0.5% has statistical significance, KMO = 0.959 > 0.5 shows that the analytical significance is appropriate.

- For the dependent variable, EFA analysis results in Sig<0.5%, KM0 = 0.881>0.5. In which, there are 3 variables extracted with eigenvalue greater than 1, total cumulative variance 53,610%, all observed variables of dependent variable are guaranteed to be significant.

#### 4.3.2.3. Analysis of CFA





The above results show that the TLI and CFI indexes are 0.967 and 0.971, respectively, GFI value = 0.943, CMIN/df = 1.620< 2, RMSEA = 0.032< 0.08 (asymptotic to the very good level is < 0.03. Therefore, the CFA results show that the above research model is completely suitable.

			Estimate
SD	<>	VH	0.829
SD	<>	ND	0.762
SD	<>	TD	0.785

#### Table 4.12 . Correlation coefficients

			Estimate
VH	<>	ND	0.814
VH	<>	TD	0.783
SD	<>	VH	0.829

Table 4.12 shows that the correlation coefficient between the component values is less than 0.9. Thus, the observations built by the NCS are guaranteed to achieve discriminant value, there is no autocorrelation between factors.

4.3.2.4. Hypothesis testing through linear regression

\* The influence of 4 factors on the effectiveness of training for individuals

Testing the regression model with 4 independent variables and the dependent variable is the training efficiency with the individual, the regression model is built:

HH = 1.044 + 0.108TD + 0.164ND + 0.16VH + 0.325SD + e

\* The influence of factors on the effectiveness of training with the organization

The regression model of the training effectiveness of the organization with the influencing factors is specifically written as follows :

HQ = 0.783 + 0.008TD + 0.247ND + 0.279VH + 0.261SD + e\* The influence of factors on the effectiveness of training with society

The regression model of the training effectiveness of the organization with the influencing factors is specifically written as follows :

HT = 2.052 + 0.2TD - 0.061ND + 0.219VH + 0.118SD + e

\* Conclusion about model testing

Thus, testing the regression model of the hypotheses, we see that, in 12 research hypotheses, there are 10 accepted hypotheses and 2 unacceptable hypotheses . Specifically as follows :

STT	Hypothetical pair	Conclusion
H1	Students' attitudes have an impact on the	Accept
	effectiveness of training for individuals	
H2	Student attitudes have an impact on training	Does not
	effectiveness for the organization	accept
H3	Students' attitudes have an impact on the	Accept
	effectiveness of training in society	
H4	Training content has an impact on training	Accept
	effectiveness for individuals	
H5	The training content has an impact on the training	Accept
	effectiveness for the organization	
H6	The content of training has an impact on the	Does not
	effectiveness of training for society	accept
H7	Organizational learning culture has an impact on	Accept
	training effectiveness for individuals	
H8	Organizational learning culture has an impact on	Accept
	training effectiveness for the organization	
H9	Organizational learning culture has an impact on	Accept
	training effectiveness for society	
H10	Use after training has an impact on the effectiveness	Accept
	of training for individuals	
H11	Using post-training has an impact on training	Accept
	effectiveness for the organization	
H12	Use after training has an impact on the effectiveness	Accept
	of training for society	

Table 4.22. Conclusion about the research hypothesis

(Source: Summary of NCS)

#### 4.4. Evaluation of the effectiveness of human resource training of EVN

The average training efficiency of EVN currently reaches 3,758 points on a 5-point scale. Thus, the training efficiency of EVN is now above average and close to the good level. In which, according to the research model, effectiveness for individual employees is the most important criterion, accounting for 38.051% of EVN's human resource training efficiency; effectiveness for organization accounts for 33.987% and efficiency for society accounts for 27.962% of EVN's overall human resource training efficiency. Specifically:

Regarding the effectiveness of EVN's human resource training on the employees themselves, the training effectiveness for the individual employees has an average score of 3,6594 points The observed variables also have the difference not too high. The observed variables also have the difference not too high. Analysis of a number of secondary indicators such as financial indicators of human resources, salary costs and human expenses has proved the above statement.

Among the three aspects of human resource training effectiveness, the efficiency for the organization has the lowest average score with 3,5382 points. Lower than the average point of the overall training efficiency is 0.0837 points. Thus, it can be seen that although the overall average score is not achieved, the efficiency for the organization is still at an acceptable level. Analysis of a number of indicators such as average labor productivity and basic financial indicators show that Evn's activities in recent years have been stable and have relatively sustainable development.

Regarding the effectiveness of EVN's human resource training to society, the average score of this aspect is 3.6797. For the first three indicators, the factors of "reducing customer complaints"; "reducing the rate of occupational accidents"; "Reducing harmful effects of environmental pollution" is based on the research model of Kaufman. All these indicators have achieved quite good average results (approximately or above 3.6 points). This result is also evidenced by the secondary indicators of EVN. However, it must also be recognized the fact that, although the given figures have demonstrated the great efforts of EVN in social responsibility, in society, many people I really appreciate that effort. In addition, EVN still has problems to overcome in order to further increase its contribution to society. Specifically, it is a matter of increasing the share of renewable energy

In order to accurately assess the difference in EVN's e-efficiency according to the demographic characteristics of the research subjects, the thesis has conducted Anova test. One way Anona test results show that, at the 95% significance level and the value of the observed data, there is only one attribute variable that affects the training efficiency. Specifically, when testing the different degree of e-efficiency for the organization of the educational attribute variable, the Sig result of the levene statistic is 0.000; Sig result of Welch statistic is 0.024 < 0.05. This shows that, at different levels of education, there are differences in the effectiveness brought to the organization.

### CHAPTER 5. DISCUSSION OF RESEARCH RESULTS AND SOME RECOMMENDATIONS

#### 5.2.1.1. Trends in human resource training in the current period

- Firstly, training content needs to focus more on skills and attitudes instead of knowledge

- Second, digitize repetitive content.

- Third, training programs that prepare organizations for the future need to be precisely defined and based on market expectations.

- Fourth, focus on communication in training.

5.2.1.2. Orientation and perspective on human resource development of the country

- Education and training must accompany and develop synchronously with science and technology.

- Transforming the process of education and training from knowledge acquisition to comprehensive capacity development, associated with practice, learning coupled with working.

- Education and training must serve the process of industrialization - modernization and international integration.

- Strengthening state management of human resources, linking human resource supply and demand.

5.2.1.3. Development orientation of human resource training activities of EVN

- Application of science and technology in human resource training.

- Build and standardize the system of internal trainers, gradually increase the rate of using internal trainers in training programs of EVN.

- Building a training system with a variety of training methods.

- Establishing a Center for Training and Scientific Research, building the center into a "cradle" to train and develop generations of managers and experts for EVN.

- Building an organizational culture towards self-learning, selfimprovement, and treating all employees fairly and with integrity.

- Develop training program frameworks in various fields with the goal of applying a standardized system of training program frameworks by fields and levels. and unified for the whole Group.

- Develop and put into use a competency framework, a competency dictionary in the entire human resource management system in general and training in particular.

## 5.2.2. Solutions and recommendations to improve the effectiveness of human resource training of EVN

5.2.2.1. Solutions to enhance the positive impact of students' learning attitude on training effectiveness

\* Create learning motivation through the benefits that learners receive.

\* Pay attention to the selection of training subjects.

5.2.2.2. Solutions to enhance the positive impact of training content elements on training effectiveness

\* Training content needs to be appraised in the future, EVN should pay attention to the issue of training content accreditation. This responsibility can be assigned to human resources staff (if training in soft skills, integration) or superiors in charge of specialized areas of the training contents.

\* Link training content with training objectives .

5.2.2.3. Solutions to enhance the positive impact of organizational learning culture factors on training effectiveness

\* Initiate and play a leading role in building a learning culture. To build a learning culture, EVN's senior leaders need to play a pioneering role, initiating learning movements.

\* Continue to build a culture of self-study, self-reading, self-training through E-learning software.

5.2.2.4. Solutions to enhance the positive impact of factors used after training on training effectiveness

\* Assign challenging tasks. Direct leaders can pay attention to assigning challenging tasks, tasks that need to apply new knowledge and skills for employees to use in the working process. This is also essentially an emphasis on on-the-job training.

\* Build a reasonable post-training inspection mechanism. EVN may add post-training inspection for some time. By doing this, workers will be conscious of maintaining the level of mastery of the trained knowledge for a long time.

5.2.2.5. Solutions to complete other human resource management operations to help change training efficiency

\* Focusing on training effectiveness evaluation activities

\* Develop measures to associate labor productivity targets with human resource training

\* Strengthen the attention of the Board of Management on the effectiveness of human resource training of EVN

#### CONCLUSION

Over the years, to meet the increasing requirements of the Party and State, the healthy competitive market mechanism as well as customers, EVN has gradually changed to ensure that requirement. One of the key solutions that EVN focuses on is human resource training. However, whether investment activities have been effective, how to change to continue to improve efficiency is a big problem that needs to be answered.

Faced with the above problem, in the content of his thesis, the PhD student has built a model to evaluate the effectiveness of human resource training of EVN based on a new approach to training effectiveness. This model helps to ensure feasibility and practicality because the ability to measure as well as the cost when applied is acceptable. The research results based on this model have shown that the efficiency of EVN is now above average and has had positive results. However, some limitations still exist in the training work of EVN. So NCS has also come up with solutions to fix this

However, the thesis still has limitations, specifically: One is that the thesis uses little secondary data because the data source accessible to EVN is quite difficult. Second, the new thesis selects and analyzes four endogenous factors affecting the training effectiveness of EVN. Third, the thesis has not built and measured the ratio to measure the added value added by training . Therefore, the following studies can explore more deeply about the groups of factors other than those selected by the researcher.

#### LIST OF RESEARCH WORKS OF THE AUTHOR RELATED TO THE THESIS IS DISCLOSED.

1. Research on evaluating the effectiveness of human resource training at Viettel Military Industry and Telecommunications Group, Research project at grassroots level, University of Labor and Social Affairs, 2019

2. Changes in human resource training to meet the requirements of the industrial revolution 4.0. Proceedings of the National Conference "Corporate Human Resource Management in the Context of International Integration and Industrial Revolution 4.0", April 2019, (ISBN; 978-604-62-8950-0)

3. Greening training towards the national goal of green growth in the energy sector . Proceedings of the National Conference "Green Human Resource Management – Opportunities and Challenges for Vietnamese Enterprises", October 2021, (ISBN:978-604-308-663-8)

4. Effective human resource training - new theories and approaches. Asia Pacific Magazine, October 2021 (ISSN 0868 – 3808)

5. Research on the influence of student attitude factors on the effectiveness of human resource training of the Electricity of Vietnam (EVN). Asia Pacific Magazine, November 2021 (ISSN 0868 – 3808)