Vol. 10, No. 1, 2024, pp. 120-129
DOI: https://doi.org/10.29210/020242399

Contents lists available at the IICET Journal

JPPI (Indonesian Education Research Journal)
ISSN: 2502-8103 (Print) ISSN: 2477-8524 (Electronics)

Journal homepage : https://jurnal.iicet.org/index.php/jppi

The effect of human resources management on the success of electricity projects (tower transmission) in west Papua province

Ivan Yosefwan Naibaho[*)], Aditya Sudiarno
[1]Program Studi Magister Manajemen Teknologi Institut Teknologi Sepuluh Nopember, Indonesia
[2]Sekolah Interdisiplin Manajemen Teknologi, Indonesia

Article Info

Article history:

Received Dec 12th, 2022
Revised Apr 08th, 2023
Accepted Jan 21st, 2024

Keyword:

Human resources management,
Triple constraint,
Project success,
Construction,
Electricit

ABSTRACT

The development of electricity facilities and infrastructure plays a vital role in supporting the economic, social, and cultural activities of a nation. The success of construction projects, including transmission towers, can be measured based on the triple constraint, namely correct quality, timely and cost-effective. These three things can be achieved through human resource management. This study aims to measure the influence of human resource management which includes HR planning, project leadership support, organizational structure, and provision of training on the success of electricity projects (transmission towers) in West Papua Province. This study uses a cross-sectional approach to determine the relationship among the variables studied. A partial disaggregation approach with Structure Equation Modeling - Partial Least Square using SmartPLS was carried out to measure the causal relationship among the observed variables. Based on hypothesis testing, it was identified that each variable influences the success of the electricity project, where the provision of training has the greatest influence. Overall the goodness of the model in measuring the relationship between the four factors on project success is shown by the R2 value of 0.880 which is categorized as a strong influence.

Corresponding Author:

Ivan Yosefwan Naibaho
Institut Teknologi Sepuluh Nopember
E-mail: ivanyosefwan@gmail.com

Introduction

The development of facilities and infrastructure has a very important role in supporting economic, social, and cultural activities, as well as national unity and integrity, especially as the basic capital in facilitating interaction and communication between community groups as well as binding and connecting between regions. The support of facilities and infrastructure for national economic growth is mainly manifested in the role of transportation, communication, and informatics networks that enable people, goods, and services to move from one place to another and exchange information quickly. In addition, support for facilities and infrastructure is also manifested in the role of water resources, electricity, as well as housing and settlements which are an integral part of people's lives.

Human Resources (HR) play an important role in the provision of quality infrastructure facilities and services(Jing et al., 2021). For construction companies, the quality of human resources is also an important factor in determining the success of project implementation (Willy & Sekarsari, 2020). Good human resources can achieve project goals by carrying out work effectively and this has a direct effect on company profits (Dewi et al., 2016). Human resources are the main actors in determining the success of a construction project

(Abuazoom et al., 2017). Even though a construction project is supported by sufficient capital and good equipment, if it is managed by a workforce that has sober capabilities it will certainly not be optimal because the expected performance will certainly not be achieved optimally (Willy & Sekarsari, 2020).

Hence, management HR for the company is an important component that is very strategic to run (Supriyadi et al., 2020). This includes proper human resource planning to produce an effective work unit that can increase the performance and added value as well as the success of a company's project (Wibisana & Indrajaya, 2019). In line with that, Schwalbe (2015) argues that HR planning means identifying and documenting a person's role in the project, their responsibilities, and how the person's reporting relationship with other people in the project. HR planning is an asset that can increase the success of the company(Samimi & Sydow, 2021). The new paradigm in managing company activities is the utilization of human resources which can be seen from the role in company activities (Maendo et al., 2018). Organizing the role of HR requires planning, management, and supporting factors in the form of a good work environment and commitment that influence the behavior of individuals working in the organization(Robbins & Judge, 2011).

Roles in the organization require not only limited coordination from each person but for all working people. Therefore, support from the project leader is needed for the smooth implementation of the project work. This support can be in the form of attitudes, feelings, and assumptions (perceptions) that arise as a result of cooperation with colleagues or stakeholders that are unknown to the organization. In addition to supporting from the project leader, the state of the organizational structure is also a factor supporting the success of the company's projects (Chapano et al., 2018). The organizational structure is part of the organizational plan that includes the identification and documentation of project roles, responsibilities, and reporting relationships. At this stage of organizational planning needs to be planned, among others; the responsibilities of each team, when it is needed, identifying whether training is needed for the person, remuneration and reward plans, how to evaluate someone's performance, and criteria for how to terminate someone.

Another factor that supports the success of the project is the ability of human resources. Ability or expertise can be obtained from employee training. HR capability is considered a competitive advantage which means it is the main key to being able to face competition in the era of globalization (Sirshar et al., 2019). Training is one of the efforts to improve employee competence, to meet the work standards desired by the company. Training for workers or employees is a process of teaching certain knowledge and skills as well as attitudes so that employees are more skilled and able to carry out their responsibilities better, according to standards(Mangkuprawira & Hubeis, 2007). Electricity infrastructure development is very important in meeting the demand for electricity in eastern Indonesia. The development of electricity will also increase welfare and economic growth, such as in West Papua Province. To meet electricity needs, the State Electricity Company (PLN) for decades has been building electricity infrastructure to meet electricity needs in 14 district capitals in Papua and West Papua Provinces. In 2017 this target is expected to have been achieved through PLN's efforts in collaboration with the district government.

From the description above it can be seen that human resource management manages many fundamental functions in an organization which also plays a role in ensuring compliance with labor laws, recruitment and training, compensation, performance appraisal and so on which are needed in managing human resources to achieve organizational goals (Notoatmodjo, 2015). This study aims to measure the influence of human resource management which includes HR planning, project leadership support, organizational structure, and provision of training on the success of electricity projects (transmission towers) in West Papua Province.

Method

This type of research is a quantitative descriptive study with a cross-sectional approach. This method is used to determine the dynamics between the variables studied, namely human resource planning, project leadership support, organizational structure, and available training, and their relationship to the success of the electricity project. Data were collected through observation and interviews at the same time (point time approach)(Notoatmodjo, 2015). The population in this study were all workers on the electricity project (transmission tower) in West Papua Province. The sample in this study were some of the workers in the electricity project (transmission tower) in West Papua Province, including Project Managers, Project Admins, Engineers, HSE, Surveyors, and Manpower workers with a total sample of 35 people. The method of determining this sample was determined by the researcher because all populations met the requirements to be the sample in this study.

The types of variables in this study are independent and dependent variables. The independent variables consist of Human Resource Planning or abbreviated HRM (X1), Project Leader Support, or abbreviated DPP

(X2), and Organizational Structure or abbreviated SO (X3). The description of the aspects studied in each variable is as follows:

Table 1. Research Variables

Variable	Researched Aspects	Items Scale	Variable Scale
Human Resource Planning (X1)	1) Identify the role of HR 2) Document the role of HR 3) HR responsibilities _ 4) Relation of reporting within the project (Ling et al., 2018;Willy & Sekarsari, 2020)	Likert	Ratio (Mean Value)
Project Lead Support (X2)	1) construction project manual, 2) Direction for construction project activities. (Jing et al., 2021)	Likert	Ratio (Mean Value)
Organizational Structure (X3)	1) task clarity 2) Clarity of authority 3) Clarity of responsibilities (Ervianto, 2019)	Likert	Ratio (Mean Value)
Provision of Training (X4)	1) Training time 2) Training material or expertise 3) Training infrastructure facilities 4) Evaluation of training, training venues 5) Training methods (Nitisemito, 2015)	Likert	Ratio (Mean Value)
The success of the Electricity Project (Transmission Tower) (Y)	*Triple Constraints* 1) Right Quality 2) On time 3) Cost right (Dimyati & Kadar, 2014)	Likert	Ratio (Mean Value)

Source: Processed by the author, 2022

Data analysis in this study uses a partial disaggregation approach with the help of *Structure Equation Modeling (SEM)*(Bagozzi & Heatherton, 1994). SEM analysis is used to describe the causal relationship between the observed variables to provide a quantitative test of the theoretical models hypothesized in this study, namely the influence of human resource planning, project leadership support, organizational structure, and provision of training on project success. Taking into account the number of samples, the analysis in this study uses SEM *Partial least squares* (Pls), this is under the opinion Ghozali & Latan (2012) that SEM PLS can be used for small sample sizes, namely under 100 samples.

Results and Discussions

Based on the results of calculating the path coefficient in Figure 4.3 above, the following equation can be obtained:

$$Y = 0.389X1 + 0.354X2 - 0.393X3 + 0.673X4, R^2 = 0.880$$

Information:

a. In the equation above, the path coefficient X1 has a positive value of 0.389. That is, there is a unidirectional relationship between X1 and Y. If X1 increases by one unit, then Y will increase by 0.389, and vice versa.
b. The path coefficient X2 has a positive value of 0.354. That is, there is a unidirectional relationship between X2 and Y. If X2 increases by one unit, then Y will increase by 0.354, and vice versa.
c. The path coefficient X3 has a negative value of 0393. This means that there is a non-unidirectional relationship between X3 and Y. If X3 increases by one unit, then Y will decrease by 0.393, and vice versa.
d. The X4 path coefficient has a positive value of 0.673. That is, there is a unidirectional relationship between X4 and Y. If X4 increases by one unit, then Y will increase by 0.673, and vice versa.

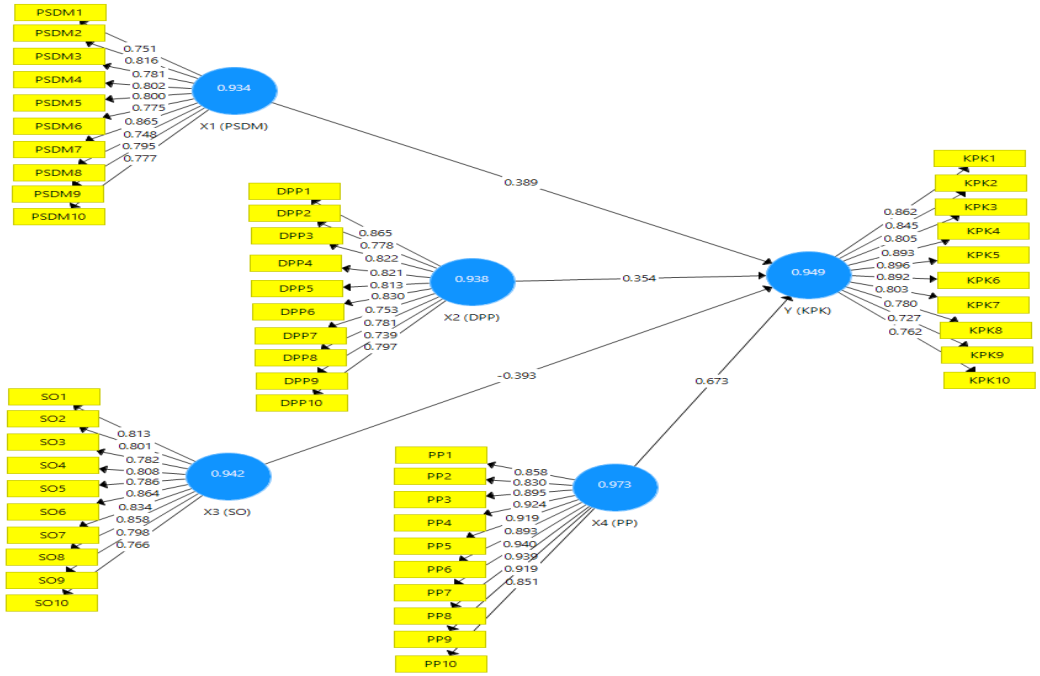

Figure 1. Structural Model with Path Coefficient Values
Source: Results of SmartPLS analysis by the Author, 2022

Information:
X1 (PSDM) = Human Resource Planning
X2 (DPP) = Project Lead Support
X3 (SO) = Organizational Structure
X4 (PP) = Provision of Training
Y (KPK) = Electricity Project Success
The value of the Path Coefficient of Variable X is in the range of -1 to 1.

The R square value (R^{2}) is 0.880, meaning that the Y construct can be explained by the X1, X2, X3, and X4 constructs of 88.0% while the remaining 12% is explained by other factors not examined in this study.

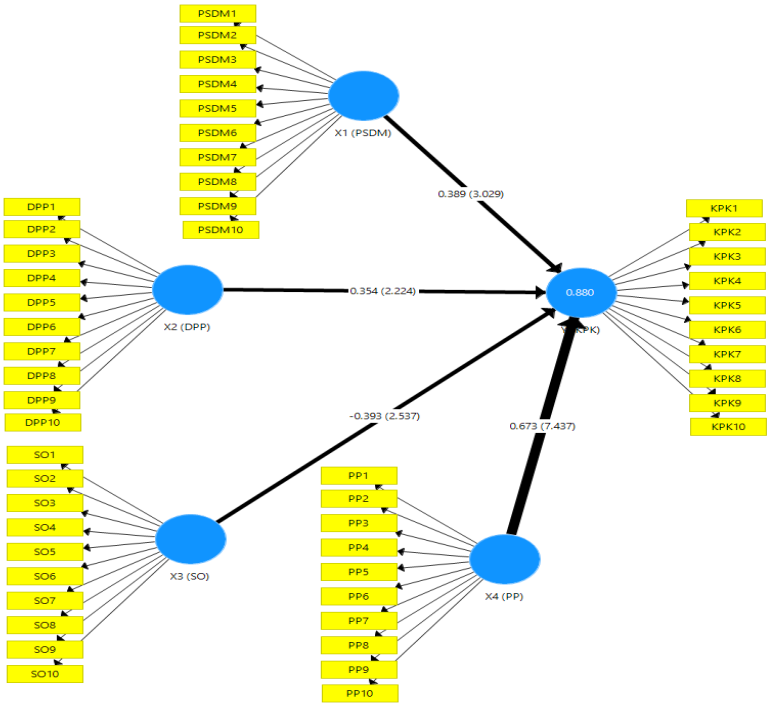

Figure 2. Partial Hypothesis Test with Path Coefficient and T-count values
Source: Results of data analysis with SmartPLS by the Author, 2022

Based on the results of the hypothesis testing presented in Table 4.24 and Figure 4.5, the relationship between variables (constructs) can be explained as follows: (1) The coefficient value of X1 to Y is 0.389 in a positive direction (0.389 > 0), where the t-value = 3.029. The path coefficient values above show a unidirectional relationship between Human Resource Planning (X1) and the Success of Electricity Projects (Y). This means that if Human Resource Planning increases, then the success of the Electricity Project will increase. In addition, the t-table value at a significance level of 0.05 is ±1.697, so the t-value is 3.029 > t table 1.697. Thus the first hypothesis is accepted, meaning that Human Resource Planning influences the success of the Electricity Project significantly. (2) The coefficient value of X2 to Y is 0.354 in a positive direction (0.354 > 0), where the t-value = 2.224. The path coefficient value above shows a unidirectional relationship between Project Leader Support (X2) and Electricity Project Success (Y). This means that if the Project Lead Support goes well, then the success of the Electricity Project will increase. In addition, the t-table value at a significance level of 0.05 is ±1.697, so the t-value is 2.224 > t table 1.697. Thus the second hypothesis is accepted, meaning that the Project Leader's Support has a significant effect on the success of the Electricity Project. (3) The coefficient value of X3 to Y is -0.393 with a negative direction (0.393 <0), where the t-value = 2.537. The path coefficient value above shows a negative relationship between Organizational Structure (X3) and Electricity Project Success (Y). This means that if the Organizational Structure increases, the Success of the Electricity Project will not show an immediate increase. Even so, the t-table value at a significance level of 0.05 is ±1.697, so the t-value is 2.537 > t table 1.697. Thus the third hypothesis is accepted, meaning that Organizational Structure has a significant effect on the success of the Electricity Project with its indicators. (4) The coefficient value of X4 to Y is 0.673 in a positive direction (0.673 > 0), where the t-value = 7.473. The path coefficient value above shows a unidirectional relationship between the Provision of Training (X4) and the Success of Electricity Projects (Y). This means that if the Provision of Training increases, the Success of the Electricity Project will increase.

In addition, the value of the t table at a significance level of 0.05 is ±1.697, so the t-value is 7.473> t table is 1.697. Thus the third hypothesis is accepted, meaning that the Provision of Training has a significant effect on the success of the Electricity Project

Influence Human Resource Planning for the Success of the Electricity Project (transmission tower) in West Papua Province.

Based on the hypothesis test, the partial relationship of the Human Resource Planning (X1) variable to the success of the Electricity Project was analyzed with the provision that the t table value is at a significance level of 0.05, namely ±1.697, while the t-value is 3.029. In other words, the results of this test show that t-value > t table. It can be interpreted that the Human Resource Planning variable and its indicators influence the success of the Electricity Project and its indicators significantly. Thus the hypothesis which states that Human Resource Planning has a significant effect on the success of Electricity Projects can be accepted.

Related to the above, the electricity project (transmission tower) has implementation stages. Thus each stage of work may require different skills possessed by different workers. There is therefore a need for a staff management plan that describes when and how people will be added to and removed from the project team. The results of this study, through the question points of the X1.7 questionnaire, showed that 77.1% of construction workers acknowledged this planning. In addition, when human resources are added or become part of the project team, there is a matrix that maps out the major project work and who is responsible for the work. This is reflected in the results of research through question points X1.8 and X1.9 which show that 82.8% of construction workers know there is a matrix that maps project work (the Responsibility Assignment Matrix (RAM), and 82.8% know there is a matrix list of activities or targets from the scope of a project)Work Breakdown Structure (WBS matrix) of the people responsible for carrying out the work in the project. Other things found in human resource planning.

Performance appraisal procedures are common practice in every organization. Concerning procedures for assessing performance, this research does not examine in detail the types or methods of evaluating the performance of construction project workers in the three projects in West Papua. However, the results of the analysis of the availability of performance appraisal procedures which are categorized as good show that the project management has implemented performance appraisals and is related to the amount of remuneration received by project workers. This is in line with the opinion that Arner et al. (2016) performance appraisal is applied to assess contractor performance in various aspects which include quality performance; time performance; cost performance; environmental performance; health and safety performance; productivity performance; and human resource performance which ultimately benefits the contractor as it increases work efficiency.

When a certain stage of work ends, someone's role in the project team may no longer be needed even though the project activity has not ended. Letting workers who are no longer needed remain in the team until the project

period is complete is a waste of money for contractors. Therefore, in human resource planning, guidelines or criteria are needed that are clear and accepted by both parties, employers, and workers in terms of termination of employment. Related to this, this study through question points X1.6 shows that 77.1% of construction workers know about guidelines for termination of employment in electricity projects (transmission towers). The importance of paying attention to the criteria for termination of employment (PHK) is recognized by (Djau, 2018), considering that decision-making in terminating employment mostly impacts unskilled workers. Besides that Febrianti (2020) Termination of employment will be easier and more satisfying for both parties and can prevent conflict if there is an agreement and a clear understanding of the work agreement that has been mutually agreed upon.

Judging from the variable effect value (size effect), it can be said that Human Resource Management has a strong influence on project success. This can be seen from the influence of the Human Resource Planning variable of 0.374 on Project Success which is categorized as a major influence, as shown in Table 4.22.

The Effect of Project Management Support on the Success of the Electricity Project (Transmission Tower) in West Papua Province.

The relationship between the variable Project Management Support and the success of the Electricity Project is assigned a t table value at a significance level of 0.05, namely ±1.697, while the t-value is 2.469, meaning t-value > t table. This shows that the Project Leader Support variable and its indicators significantly affect the success of the Electricity Project and its indicators. Thus the hypothesis which states that Project Leader Support has a significant effect on the success of the Electricity Project can be accepted. The project leader has a major influence on the success of the electricity project, this is reflected in the role of the Project Leader as a planner and maker of guidelines regarding time, activities, costs, and resources to be used in project implementation. This was acknowledged by most of the construction workers in this study, through questionnaire questions from points X2.1 to X2.6, where around 57% - 82% of workers believed that the project leader had performed the role of provider and scheduler of activities. , complete costs and resources needed in the implementation of the project.

In realizing this plan, the project leader, or known as the project manager needs to have good communication skills so that what will be done and how to do it is easily understood by team members. This is in line with the findings of Alvarenga et al. (2019), the project manager is the key person in leading the project team and the project manager needs to have a variety of skills to form a distinct set of competencies. In terms of communication, this study found that 80% of project workers acknowledged the important role of the project leader in communicating the planning, activities, and monitoring needed in project implementation. This communication is carried out between different sections, for example, communication with project workers, contractors, local government, and other stakeholders. In line with these findings(Jing et al., 2021), positing open communication within functions and across functions that make up project teams can combine ideas, build relationships and create consensus when dealing with conflicts. In summary, effective and open communication during the project planning and implementation phases cannot be neglected to achieve successful project delivery.

In this electricity project in West Papua, the project leader not only provides general information about the project but also provides information to the parties involved. This is reflected in the results of the research questionnaire X2.9 where 71.4% of construction workers agree that the project leader carries out the role of providing information between sections and special expertise involved in the project. In addition, 74.3% of workers know that project leaders provide information/reports on project implementation to contractors. This is reflected in the results of questionnaire questions X2.10. The project leader can do this if he or she has different technical skills, or at least understands the different areas required for project implementation. These findings confirm the opinion (Jing et al., 2021)which suggests that project manager competencies are described as leadership skills, technical skills, and people management skills. When the project is completed and presented to end users or internal customers, the project manager's ability to persuade and sell the benefits of the project is critical to ensure the project is well received by the client. Jing et al. (2021) also added a competent project manager must be able to carry out tasks effectively even when faced with limited resources, unexpected events, sudden negative changes, and technical difficulties.

Based on the findings of the 10 (ten) project leader support indicator points in this study and their comparison with the results of previous studies, it is clear that there is a positive and unidirectional relationship between project leadership support for the successful implementation of the electricity project (transmission tower) in West Papua. However, judging from the effect size, as shown in Table 4.22, in this study the Project Management Support variable shows a moderate effect on the success of the electricity project (transmission tower) in West Papua.

The Effect of Organizational Structure on the Success of the Electricity Project (Transmission Tower) in West Papua Province.

The relationship between the Organizational Structure variable and the success of the Electricity Project is assigned a t table value at a significance level of 0.05, namely ±1.697, while the t-value is 2.537, meaning t-value > t table. However, from the results of the path analysis, it appears that the organizational structure has no direct influence on the success of the project. Thus the hypothesis states that the organizational structure has a significant effect on the success of the Electricity Project is unacceptable. From the results of the 10-point questionnaire, questions to measure the effect of organizational structure on project success, in terms of clarity of tasks, questions X3.1 to X3.5 show 62.9% to 88.7% of construction workers know the clarity of main tasks and functions each work unit in the West Papua electricity construction (transmission tower) project. This includes the number of workers who receive certain assignments, how to carry out tasks, job descriptions according to related sections, and clarity of instructions in carrying out their duties and responsibilities. In addition, this study also shows that there is a job description that describes the responsibilities and authority that a person receives in carrying out the task. It can be seen that the results of the questionnaire points X3.6 to X3.10 illustrate that 77.1% to 85.7% of construction workers know about these arrangements. Although it seems that the electricity construction project (transmission tower) in West Papua shows the role of organizational structure in project implementation, the results of the analysis are contrary to the opinion (Jing et al., 2021), which suggests that organizational structure promotes innovation which has a positive impact on project success. Companies can focus on human resource development, empowerment, and collaboration to build a more diverse and innovative culture. Other studies such as (Santos et al., 2020) also suggested that a clear organizational structure encourages conducive work when carrying out project work.

Judging from the effect value of the variable (size effect), it can be said that the Organizational Structure which shows the existence of clear main tasks and functions, worker descriptions, clear responsibilities, and authorities among construction workers on the success of electricity projects. This is in line with the findings (Chapano et al., 2018) because the organizational structure is part of the organizational plan that includes the identification and documentation of project roles, responsibilities, and reporting relationships, it is critical to the success of the project.

The Influence of Provision of Training on the Success of the Electricity Project (Transmission Tower) in West Papua Province.

The relationship between the variable Provision of Training is set at the t-table value at a significance level of 0.05, namely ±1.697, while the t-value is 7.437, meaning that t-value> t table. This shows that the Project Leader Support variable and its indicators significantly affect the success of the Electricity Project and its indicators. Thus the hypothesis which states that the provision of training has a significant effect on the success of the Electricity Project can be accepted. The effect of the provision of training on project success in research is measured through a 10 (ten) point questionnaire. Investigation of the provision of training includes the length of training, the adequacy of training, and the timeliness of training received by construction workers. From the results of statement points X4.1 and X4.2, it is known that 54.3% of construction workers admit that the duration of the electricity project (transmission tower) training provided by the instructor is sufficient for the required training time. In addition, only 57.1% of construction workers said that the planned training was carried out according to schedule.

Another thing investigated in the Provision of Training variables is the skill and competency of the instructor. Statement X4.3 shows 60% of construction workers agree that the expertise of instructors for electricity project training (transmission tower) is adequate. The results of statements X4.4 and X4.5 in the questionnaire show that the appearance of the instructor in the electricity project training (transmission tower) shows their competence. In addition, statement X4.5 shows that the friendliness of the instructor in the electricity project (transmission tower) training supports the implementation of the training. Other important elements assessed from the variable providing training are training materials, facilities, and infrastructure, as well as an evaluation of the training programs received by construction workers. From the results of statement X4.6, it shows that 71.4% of West Papua electricity construction workers agree that the electricity project training material (transmission tower) has been provided according to the needs and by people who are competent in their fields. In addition, based on the results of statement X4.7 shows that 68.6% of construction workers admit that the facilities and infrastructure for the electricity project training (transmission tower) support the smooth running of the training. Based on the results of statement X4.8 it is known that 62.8% of construction workers admit that the evaluation of the electricity project training program (transmission tower) has been satisfactory. The results of this study indicate that training evaluation is indeed necessary to determine the impact of training on workers. This is in line with the opinion Choudhry (2014) that training evaluation aims to measure the extent to which training participants make changes in terms of behavior in the workplace. The behavior in question is behavior that improves aspects of attitude and technical expertise in handling work.

Other matters related to the provision of training that are important to know are the location and environment of the training, as well as the accuracy of the training techniques used. Through point statement X4.9 it is known that only 53.3% of construction workers said that the location and environment used in the electricity project training (transmission tower) supported the attendance of the trainees. In addition, statement point X5.10 shows that 51.5% of construction workers admit that the techniques or methods used in implementing the electricity project (transmission tower) training are appropriate to the training needs. From the results of an analysis of the indicators of the provision of training, most of the important elements of the provision of training show low scores. Overall the average value of the provision of training is 3.52 which is categorized as sufficient. Currently, the implementation of the training still shows a low point in the provision of location, environment, and participants' accessibility to reach the location. These obstacles are obstacles for project management and project workers to get the required training that supports the success of construction projects. Because this electricity project is closely related to the basic needs of the community, government support is needed in overcoming obstacles to providing training for construction workers. For example, access to transportation, adequate time, and place for training. Similar barriers were also found in research Tabassi et al. (2012) which suggests that the government and project management can work together to support the availability of adequate training for construction project workers. As the opinion Nitisemito (2015) results of the training are expected to improve and develop the attitudes, behavior, skills, and knowledge of its employees under the wishes of the company concerned.

Judging from the value of the effect of the variable (size effect), it can be said that the Provision of Training which shows the suitability of the training material to the needs, location, environment, and schedule of training implementation, as well as the competence of instructors and evaluation of training programs, shows a strong influence on the success of electricity projects. This is in line with the findings Sirshar et al. (2019) which show that the availability of meaningful competitive advantage training is the main key to being able to face competition in the era of globalization, especially for the successful implementation of project activities. Another study on the benefits of training for construction workers conducted by (Saadah, 2018) showed a high relationship between effective training and employee engagement in the construction sector where workers have good relationships with coworkers and superiors after training. Based on the influence value of the Provision of Training variable of 2.269 on Project Success which is categorized as a major influence, as shown in Table 4.22.

The success of the Electricity Project (Transmission Tower) in West Papua Province

Project success can be assessed based on three main factors called triple constraints, namely whether the project is completed with the right quality, on time, and on cost (Dimyati & Kadar, 2014). In this study, these three factors were analyzed based on respondents' preferences for 10 indicators of the success of the electricity project (transmission tower) in West Papua Province (Appendix 6) and Project Implementation Progress Report (Appendix 7), West Papua SUTT Project Review Report (Appendix 8), and Social Issues from SUTT evaluation report (Appendix 9).

Based on respondents' preferences, the average project success based on quality, time, and the cost is 70.60%, where each factor is described in the following diagram:

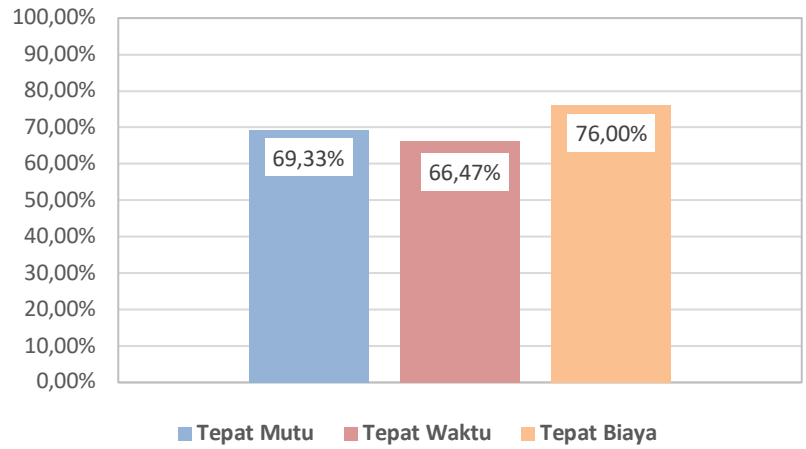

Figure 3. Success of the Electricity Project (Transmission Tower) in West Papua Province
Source: Results of data analysis by the author, 2022

Based on the table above, it is known that the success of electricity projects in the province of West Papua with the right quality category is 69.33%, 66.47% on time, and 76.00% on cost.

Conclusions

Based on the results of the research and discussion, it can be conclude that human resource planning, project leadership support, organizational structure, and training provision have been implemented in the electricity project (transmission tower) in West Papua Province, this is known from the preference of construction workers for these four factors between 70.4% to 79.8 % or with an average of 3.81 on a scale of 5 so that it is categorized as good. The success of the electricity project (transmission tower) in West Papua Province the object of this research is still relatively low, this can be seen from the project completion period which is longer than the time stipulated in the work contract. The influence of human resource planning on the success of electricity projects (transmission towers) in West Papua Province shows a unidirectional and positive relationship, meaning that if human resource planning increases, the success of electricity projects will increase, and vice versa. The influence of the project leader's support on the success of the electricity project (transmission tower) in West Papua Province shows a unidirectional and positive relationship, meaning that if the support of the project leader increases, the success of the electricity project will increase, and vice versa. The influence of organizational structure on the success of electricity projects (transmission towers) in West Papua Province shows a non-unidirectional or negative relationship. It can be said that the findings of this study indicate that the organizational structure has no significant relationship to the success of the transmission tower construction project. The effect of the provision of training on the success of the electricity project (transmission tower) in West Papua Province shows a unidirectional and positive relationship, meaning that if the project leadership's support increases, the success of the electricity project will increase, and vice versa.

References

Abuazoom, M. M. I., Hanafi, H. Bin, & Ahmad, Z. Z. Bin. (2017). Influence of HRM practices on project performance: Conceptual Framework. International Journal of Academic Research in Business and Social Sciences, 7(3), 47–54. https://doi.org/https://doi.org/10.6007/IJARBSS/v7-i3/2691

Arner, D. W., Barberis, J., & Buckley, R. P. (2016). 150 years of Fintech: An evolutionary analysis. Jassa, 3, 22–29. https://search.informit.org/doi/10.3316/ielapa.419780653701585%0A

Bagozzi, R. P., & Heatherton, T. F. (1994). A general approach to representing multifaceted personality constructs: Application to state self-esteem. Structural Equation Modeling: A Multidisciplinary Journal, 1(1), 35–67. https://doi.org/https://doi.org/10.1080/10705519409539961

Chapano, M., Iwu, C. G., & Twum-Darko, M. (2018). The impact of high performance work practices on project performance. A case study of construction companies in South Africa. Acta Universitatis Danubius: Oeconomica. https://doi.org/https://doi.org/10.1016/j.aap.2014.03.007

Choudhry, R. M. (2014). Behavior-based safety on construction sites: A case study. Accident Analysis & Prevention, 70, 14–23. https://doi.org/https://doi.org/10.24843/JITS.2016.V20.I02.P05

Dewi, A. A., Sudipta, I. G. K., & Setyowati, D. S. (2016). Analisis Aspek Sumber Daya Manusia Terhadap Kinerja Pada Proyek Konstruksi Di Kabupaten Badung. J. Ilm. Tek. Sipil, 20, 103–109.

Dimyati, H., & Kadar, N. (2014). Manajemen proyek: CV Pustaka Setia.

Djau, R. A. (2018). Manajemen Resiko Proyek Untuk Mencegah Terjadinya Pemutusan Kontrak Kerja Pada Proyek Abrasi Pantai Desa Biluhu Tengah. Gorontalo Journal of Infrastructure and Science Engineering, 1(1), 24–32. https://doi.org/https://doi.org/10.32662/GOJISE.V1I1.137

Ervianto, W. I. (2019). Manajemen proyek konstruksi. Andi, Yogyakarta.

Febrianti, M. (2020). Analisis Faktor-Faktor Yang Berpengaruh Dalam Pemutusan Kontrak Pada Pekerjaan Saluran Afvour di Kabupaten Bangkalan. Untag Surabaya. http://repository.untag-sby.ac.id/id/eprint/8685

Ghozali, I., & Latan, H. (2012). Partial least square: Konsep, teknik dan aplikasi SmartPLS 2.0 M3. Semarang: Badan Penerbit Universitas Diponegoro.

Jing, C. K., Seng, A. K., & Teck, T. S. (2021). A Study on the Factors Influencing Project Success in Electrical and Electronic Manufacturing Sector in Penang, Malaysia. Review of International Geographical Education Online, 11(8). https://doi.org/https://doi.org/10.48047/rigeo.11.08.95

Ling, F. Y. Y., Ning, Y., Chang, Y. H., & Zhang, Z. (2018). Human resource management practices to improve project managers' job satisfaction. Engineering, Construction and Architectural Management. https://doi.org/https://doi.org/10.1108/ECAM-02-2017-0030

Maendo, D. O., James, R., & Kamau, L. (2018). Effect of project monitoring and evaluation on performance of road infrastructure projects constructed by local firms in Kenya. https://doi.org/https://ir-library.ku.ac.ke/handle/123456789/18856

Mangkuprawira, S., & Hubeis, A. V. (2007). Manajemen mutu sumber daya manusia. Bogor: Ghalia Indonesia.

Nitisemito, A. S. (2015). Manajemen Personalia, Cetakan kedelapan. Jakarta: Ghalia Indonesia.
Notoatmodjo, S. (2015). Metodologi Penelitian Kesehatan, Rineka Cipta. Jakarta. Indonesia.
Robbins, S. P., & Judge, T. A. (2011). Oganizational Behavior. New Jersey: Pearson Education.
Saadah, L. A. (2018). Effectiveness of Training Programs of the Construction Sector in the Kingdom of Bahrain. International Journal of Innovative Science and Research Technology, 3(9), 151–156.
Samimi, E., & Sydow, J. (2021). Human resource management in project-based organizations: revisiting the permanency assumption. The International Journal of Human Resource Management, 32(1), 49–83. https://doi.org/https://doi.org/10.1080/09585192.2020.1783346
Santos, F., Carvalho, M., & Brandstetter, M. C. (2020). Development of a Performance Concept in the Construction Field: A Critical Review. The Open Construction & Building Technology Journal, 14(1). https://doi.org/https://doi.org/10.2174/1874836802014010370
Schwalbe, K. (2015). Information technology project management. Cengage Learning.
Sirshar, M., Liaqat, R., & Siddique, S. (2019). Effective Human Resource Management In Project Management.
Supriyadi, I., Khamdari, E., & Susilowati, F. (2020). Peran manajemen sumber daya manusia dalam peningkatan kinerja perusahaan konstruksi. Orbith: Majalah Ilmiah Pengembangan Rekayasa Dan Sosial, 16(1), 27–34. https://doi.org/https://doi.org/10.32497/ORBITH.V16I1.2065
Tabassi, A. A., Ramli, M., & Bakar, A. H. A. (2012). Effects of training and motivation practices on teamwork improvement and task efficiency: The case of construction firms. International Journal of Project Management, 30(2), 213–224. https://doi.org/https://doi.org/10.5897/AJBM10.1343
Wibisana, A. W., & Indrajaya, A. N. (2019). The Role of Human Resource Management in the Success of the Engineering, Procurement & Construction and Operation Maintenance Projects at PT Elnusa Tbk. International Journal of Business, Economics and Law, 19(2), 8–13. https://www.ijbel.com/wp-content/uploads/2019/09/BUS_59.pdf
Willy, Y., & Sekarsari, J. (2020). Analisis Aspek Sumber Daya Manusia Terhadap Kinerja Pekerja Proyek Konstruksi. JMTS J. Mitra Tek. Sipil, 3(3), 523. https://doi.org/https://journal.untar.ac.id/index.php/jmts/article/view/8392