

The Influence Analysis Corporate Social Responsibility of PT PLN (Persero) UIP Kalbagbar on the Educational Quality to Realize SDGs, the Welfare of Fishermen in Seribu Cemara Beach

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Abstract. PT PLN (Persero) UIP Kalbagbar which participates in contributing to supporting the Sustainable Development Goals (SDGs) program, was launched by the government with the Corporate Social Responsibility (CSR) program. By conserving mangrove trees and developing educational facilities in the area of Seribu Cemara Beach, especially in the social, economic, and environmental pillars. This research aims to determine the influence of CSR programs on education to improve the welfare of fishermen in Seribu Cemara Beach, with 56 respondents who work as fishermen. The analysis was carried out using SmartPLS 3.0. The result showed that education and the environment have a positive and significant influence on the knowledge quality of fishermen, but do not influence the fishermen's welfare. Meanwhile, education and environmental CSR have a positive and significant influence on the fishermen's welfare, which succeeded in becoming the mediation variable between CSR programs and the fishermen's welfare in Seribu Cemara Beach.

Keywords: Social Responsibility, Educational Aspect, Environmental Aspect, Education Quality, Welfare, SDGs.

1 Introduction

Sustainable Development Goals (SDGs) is a global development agenda to maintain the improvement of the community's economic welfare on a sustained basis, maintain the sustainability of the community's social life, maintain the quality of the environment and inclusive development, and implement governance that can maintain an improvement in the quality of life from one generation to the next as reflected in the four pillars of sustainable development. The Sustainable Development Goals (SDGs) have captured the government of Indonesia's attention as a crucial national agenda item. The Republic of Indonesia's government has issued Presidential Regulation No. 111 of 2022 concerning The Implemental Achievement of Sustainable Development Goals, which governs the national coordinating team's goals as well as the objectives of the national road map, national action plan, and regional action plan. Corporate Social Responsibility (CSR) is a business commitment to act

morally, and lawfully, and to make a positive difference in the lives of employees, their families, and the local and global communities. Achieving sustainable development goals is directly tied to CSR in its broadest meaning. The company's responsibility to the community, the country, and the rest of the planet is also tied to sustainable development goals [10].

PT PLN (Persero) UIP Kalbagbar, as one of the BUMN units, participates in sustainable development in line with the government program, which is the Sustainable Development Goals (SDGs). It always holds programs or activities in the form of corporate social responsibility (CSR) to realize or improve sustainable development goals (SDGs), especially in work areas or around transmission project locations or generation. PT PLN (Persero) UIP Kalbagbar is responsible for the transmission project activities of the Sampit-Kuala Pembuang High Voltage Air Line (SUTT) 150 kV. One of the transmission projects is crossing and passing Sungai Bakau Village. Sungai Bakau Village is a village located on the coast of the Java Sea near Seribu Cemara Beach, where the majority of the people work as fishermen. As a social and environmental responsibility towards the community, PT PLN (Persero) UIP Kalbagbar implements an environmental CSR program in the form of mangrove forest conservation on Seribu Cemara Beach.

Aside from the Environmental CSR program, PT PLN (Persero) UIP Kalbagbar also implements the Educational CSR program in the form of the Development of Education and Training Centers, which focuses on the procurement of educational facilities and educational development for fishermen from Seribu Cemara Beach to increase the fishermen's knowledge in the field of fisheries and tourism.

2 Literature Review

Corporate social responsibility (CSR) is a branch of corporate governance in which businesses choose to carry out obligations that go beyond maximizing profits. The obligations, which are directed at stakeholders and may be economic, social, legal, or environmental, serve to highlight the company's commitment to CSR and its position in society [9].

The Sustainable Development Goals (SDGs) are a set of 17 (seventeen) objectives that are intended to reduce poverty, promote well-being, and safeguard the environment by 2030 [18].

A nation's social welfare system provides benefits and services to assist the community in meeting social, economic, educational, and health needs critical to the community's existence [20]. The achievement of social security by and for the community by protecting human rights is the aim of social welfare development [15]. The elimination of poverty, improved health, obtaining a higher level of education, and the level of communal productivity all define a community's level of living [16]. According to [17], the definition of welfare is "the concept of human dignity as seen from four indicators: security, welfare, freedom, and identity."

The purpose of education is to consciously work toward the development of one's potential, both physical and otherwise. Education is more than passing exams, figuring out graduation requirements, and printing diplomas; it is the process of imparting knowledge, theory, or academics. However, education can also be characterized as a maturation in one's quality of life, as well as a comprehension of the nature and true purpose of existence [13]. There are

different kinds of knowledge: 1) Knowledge of common sense, 2) Knowledge of religion, 3) Knowledge of philosophy, and 4) Knowledge of science [14].

Covariance-based SEM (CB-SEM) is frequently replaced with PLS-SEM. PLS-SEM and CB-SEM, however, depend on several alternative statistical calculations, representations, and assumptions [11]. PLS-SEM has long been viewed as a less advanced variation of CB-SEM. A long-held conviction that factor-based representations of theoretical notions were somehow more accurate than the approximations provided by PLS-SEM is one of these justifications [12]. To produce results that are legitimate and trustworthy, a PLS-SEM model must be thoroughly assessed. Based on the most recent developments in the field, we provide a methodical procedure for pursuing and evaluating PLS-SEM investigations [19].

3 Methods

3.1 Research Type and Design

This research used an explanatory quantitative approach with a survey approach using a questionnaire. Explanative quantitative research seeks to explain the correlation between social phenomena (variable X) and other social phenomena (variable Y), as well as answer why phenomena occur through hypothesis testing [1].

3.2 Population and Sample

Population is a generalized area consisting of an object/subject that has a certain quality and characteristic set by the researchers to be studied and then concluded [2]. The population of this study was the Sungai Bakau Village community whose members mostly works as fishermen around Seribu Cemara Beach with a total of 126 people. The sample is part of the population; the sampling method was carried out by nonprobability sampling with a purposive sampling technique. The sample criteria and characteristics in this study were:

- Communities who benefit from CSR PT PLN (Persero) UIP Kalbagbar
- Communities who work as fishermen and take part in activities held by CSR PT PLN (Persero) UIP Kalbagbar. The number of samples based on the Slovin fomula:

$$\frac{N}{1+(Nxe^2)} \quad (1)$$

$$\frac{126}{1+(126 \times 0.1^2)} = 56$$

Description:

N = the number of minimum samples

N = the number of populations

e² = percentage of accuracy allowance for sampling error (1%, 5%, 10%)

The sample used for this research was 56 people who work as fishermen in Seribu Cemara Beach, Sungai Bakau Village.

3.3 Research Variable Operational

The CSR PT PLN (Persero) UIP Kalbagbar program, which includes training for fishermen from Seribu Cemara Beach and the development of a facility for the Education Center, serves as the exogenous variable in this study. The environmental component is represented by mangrove conservation efforts at Seribu Cemara Beach.

According to [3] defines well-being as success, joy, and the standard of living for a person, a group, or a society. The welfare of fishermen at Seribu Cemara Beach serves as the endogenous variable in this study. Indicators of welfare such as income and health are utilized in this study to measure welfare. The research's endogenous and exogenous factors are education quality.

Table 1. Research Variables Operational

Variable	Definition	Indicator	SDGs Observation	Measurement
Exogen	Environmental CSR	<ol style="list-style-type: none"> 1. Program's management and maintenance 2. Implementation of TBG/SDGs 3. Implementation of international standard 4. Stakeholder cooperation 	Environment, social, economic development pillar	Likert scale 1-5
	Educational CSR	<ol style="list-style-type: none"> 1. Education facility 2. Training 3. Education fund 4. Newest method 	Social and economic development pillar	Likert scale 1-5
Exogenous and endogenous (mediation)	Educational/known quality	<ol style="list-style-type: none"> 1. Increase in human resources and knowledge of the fishermen 2. Understanding the life cycle of mangroves for fisheries 3. Continuous training 	Social development pillar	Likert scale 1-5
	Health	<ol style="list-style-type: none"> 1. Health improvement 2. Water and air quality 3. Accident/incident rates at work 	Social and environment development pillar	Likert scale 1-5 with agree-disagree scale
Endogen	Income	<ol style="list-style-type: none"> 1. Income rise 2. Side Income 3. Job vacancy opening 	Social and economy development Pillar	Likert scale 1-5

Source: Data Analysis (2023)

3.4 Data Analysis Technique

The Partial Least Square (PLS) method was employed for the data analysis in this study. PLS is a component- or variant-based structural equation modeling (SEM) equation model. PLS is an analysis technique that does not require a large sample of data (although more data will increase precision), does not require that the data be normally distributed, can measure reflective or formative indicators, can be applied to both recursive and non-recursive models, and has an integrative and thorough analysis factor [5].

4 Result and Discussion

4.1 Structural Model Design

The latent variable description and its indicator are as follows:

- Environmental CSR exogenous variable has 4 (four) reflective indicators which are program's management and maintenance (CL1), implementation of TBG/SDGs (CL2), implementation of international standards (CL3), and stakeholder cooperation (CL4).
- Educational CSR exogenous variable has 4 (four) reflective indicators which are management of education facility (CP1), training (CP2), education fund (CP3), and the newest method or material (CP4).
- Education or Knowledge Quality Meditation Variable has 3 (three) reflective indicators which are human resources improvement and fishermen's knowledge (PENDIK1), mangrove cycle on fisheries understanding (PENDIK2), and continuous training (PENDIK3).
- Welfare endogenous variable has 6 (six) reflective indicators which are health improvement (KES1), water and air quality (KES2), accident rate at work (KES3), income raise (PEND1), side income (PEND2), and job vacancy opening (PEND3).

The metrics utilized to assess the Seribu Cemara Beach fisherman respondents' measuring model were all valid and trustworthy. As a result, the following structural model is obtained for this study:

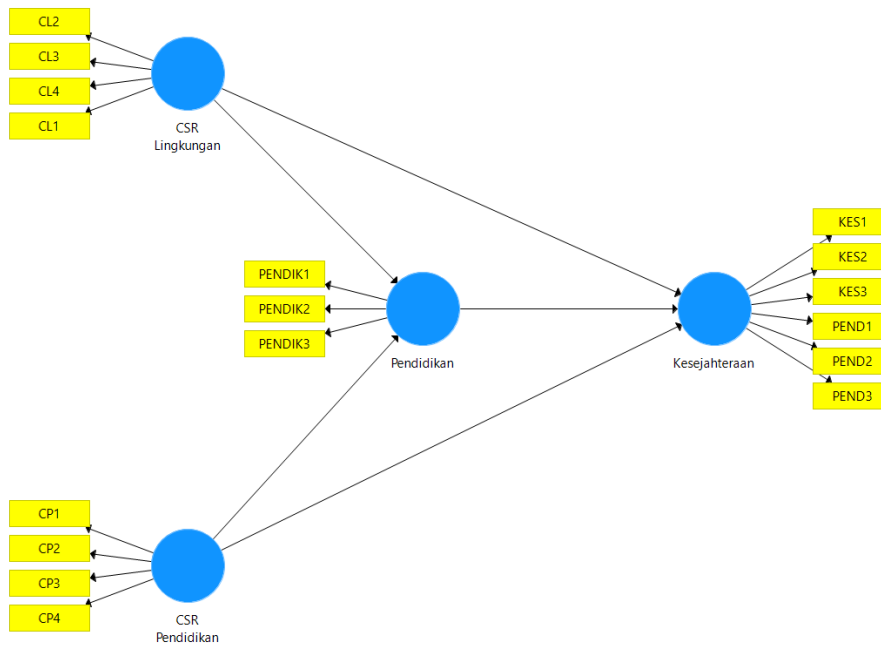


Fig. 1. Research Model Design
Source: Data Analysis from PLS (2023)

4.2 Outer Model Analysis

The three stages of the outer model analysis are the reliability test, the discriminant validity test, and the convergent validity test.

- **Convergent Validity**

If the correlation is greater than 0.7, the size of the reflective indicator is deemed to be high. However, a loading value of 0.50 to 0.60 is seen to be adequate for research in the early phases of constructing a measurement scale [5].

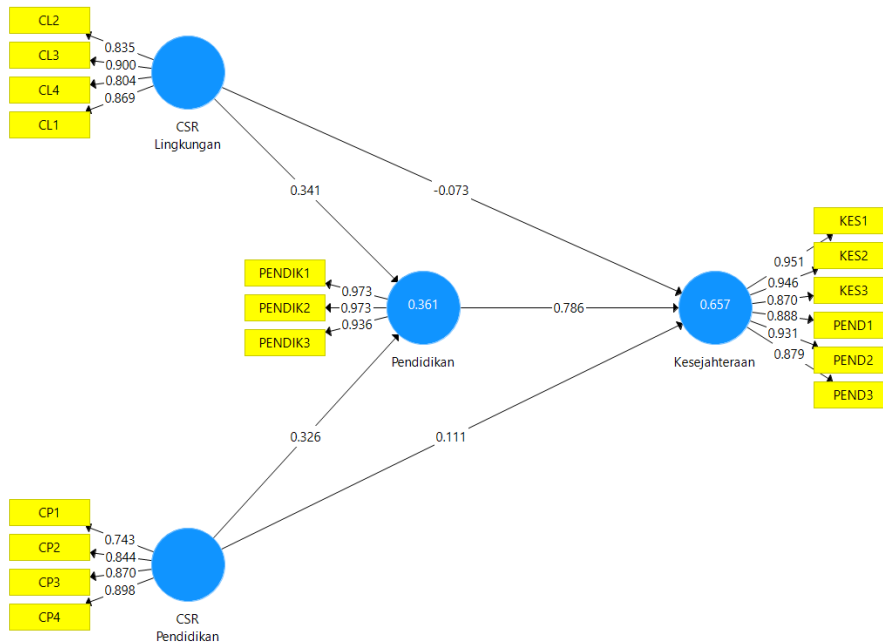


Fig. 2. Outer Loadings Result (Convergent Validity)
Source: Data Analysis with PLS Outer Loadings (2023)

- **Discriminant Validity**

Comparing the value on the Fornell-Larcker Criterion table requires performing a discriminant validity test on reflective indicators. If the value at the top of each variable is greater than the value at the bottom, the reflective indicator is said to be valid.

Table 2. Discriminant Validity Output

	ENVIRONMENTAL CSR	EDUCATIONAL CSR	WELFARE	EDUCATION
ENVIRONMENTAL	0.853			
EDUCATIONAL	0.627	0.841		
WELFARE	0.425	0.489	0.911	
EDUCATION	0.545	0.539	0.806	0.961

Source: Data Analysis with Discriminant Validity (2023)

- **Reliability**

A variable can be considered to have good reliability if the composite reliability value or Cronbach's alpha is bigger than 0.70 [6].

Table 3. Reliability Output

	Cronbach's Alpha	Composite Reliability
ENVIRONMENTAL CSR	0.874	0.914
EDUCATIONAL CSR	0.866	0.906

WELFARE	0.959	0.967
EDUCATION	0.958	0.973

Source: Data Analysis with Construct Reliability and Validity(2023)

4.3 Inner Model Analysis

The examination of latent constructs that have been proposed in research is done using the inner model analysis. A statistical resampling technique is called "bootstrapping." Resampling refers to the process of selecting respondents at random from the original sample, which was frequently gathered by observation. [7].

Table 4. Bootstrapping Result

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ((O/STDEV))	P Values
Environmental CSR -> Welfare	-0.073	-0.051	0.117	0.620	0.538
Environmental CSR -> Education	0.341	0.325	0.133	2.563	0.013
Educational CSR -> Welfare	0.111	0.075	0.208	0.532	0.597
Educational CSR -> Education	0.326	0.348	0.112	2.894	0.005
Education -> Welfare	0.786	0.829	0.142	5.515	0.000
Environmental CSR -> Education -> Welfare	0.268	0.273	0.126	2.122	0.038
Educational CSR -> Education -> Welfare	0.256	0.291	0.113	2.269	0.027

Source: Data Analysis with PLS Path Coefficient Bootstrapping (2023)

- R^2 Test

According to [8], an R^2 result of more than 0.19 indicates that the model is categorized as weak, more than 0.33 indicates a moderate model and more than 0.67 indicates a good and substantial model.

Table 5. R^2 Measurement Output

Indicators	R Square
Welfare	0.657
Education	0.361

Source: Data Analysis with R-squared (2023)

- Significance Hypothesis Test

According to [5], the constancy of the proposed model in a population can be seen from the

value of the relationship between a variable and other variables or the value of the path coefficient by looking at the magnitude of the statistical T value as a statement of the value of the significance level of the relationship between one variable and another variable (the significance level is taken at the 5% error level or T more than 1.96) or see a P value that is greater than the P level (0.05).

Table 6. Hypothesis Test

Construct	T Statistics (O/STDEV)	P Values	Significance
Environmental CSR -> Welfare	0.620	0.538	There is No Significant Influence
Environment CSR -> Education	2.563	0.013	There is a Significant and Positive Influence
Educational CSR -> Welfare	0.532	0.597	There is No Significant Influence
Educational CSR -> Education	2.894	0.005	There is a Significant and Positive Influence
Education -> Welfare	5.515	0.000	There is a Significant and Positive Influence
Environmental CSR -> Education -> Welfare	2.122	0.038	There is a Significant and Positive Influence
Educational CSR -> Education -> Welfare	2.269	0.027	There is a Significant and Positive Influence

Source: Data Analysis with PLS Path Coefficient Bootstrapping (2023)

- Mediation Effect Test (VAF)

The mediation variable test can be seen from the VAF value of each mediation variable.

Table 7. VAF Test

Construct	Mediation Variable	Direct Influence	Indirect Influence	Total of Influence	% VAF	Mediation Description
Environmental CSR -> Welfare	Education Quality	-0.073	0.268	0.195	37.43 %	Partial
Educational CSR -> Welfare	Education Quality	0.111	0.256	0.367	30.22 %	Partial

Source: Data Analysis with Variance Accounted for Mediation(2023)

5 Conclusion

Based on the data analysis and discussion explained earlier, it can be concluded that the influence of the Corporate Social Responsibility Program of PT PLN (Persero) UIP Kalbagbar in environmental and educational aspects to support the Sustainable Development Goals program for the Welfare of Fishermen in Seribu Cemara Beach, Sungai Bakau Village, Seruyan Regency is as follows:

- The Corporate Social Responsibility Program in the Environmental Aspect (Mangrove Forest Conservation) has no direct influence on the welfare of the fishermen of Seribu Cemara Beach.

- The Corporate Social Responsibility Program in the Environmental Aspect (Mangrove Forest Conservation) has a positive and significant influence on the improvement of education and knowledge of the fishermen of Seribu Cemara Beach.
- The Corporate Social Responsibility Program in the Educational Aspect (Education Facility Development) has no direct influence on the welfare of the fishermen of Seribu Cemara Beach.
- The Corporate Social Responsibility Program in the Educational Aspect (Education Facility Development) has a positive and significant influence on the improvement of education and knowledge of the fishermen of Seribu Cemara Beach.
- The quality of education and knowledge of fishermen in Seribu Cemara Beach has a positive and significant influence on the welfare of fishermen of Seribu Cemara Beach.
- Corporate Social Responsibility Program in Environmental Aspect (Mangrove Forest Conservation) has a positive and significant influence on the welfare of fishermen of Seribu Cemara Beach with Partial Mediation of Education or Knowledge Quality.
- Corporate Social Responsibility Program in Educational Aspect (Education Facility Development) has a positive and significant influence on the welfare of fishermen of Seribu Cemara Beach with Partial Mediation of Education or Knowledge Quality.
- Corporate Social Responsibility Program from PT PLN (Persero) UIP Kalbagbar influences the Sustainable Development Goals for the Welfare of Fishermen of Seribu Cemara Beach by improving the quality of education and knowledge of fishermen.

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