Project management for the establishment of environmental safeguard investments for a total economy in Europe

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Abstract

This research examines and proves the effect of environmental protection investment from companies as additional producers by environmental protection activities and activities, environmental protection investments from companies as specialists and secondary producers by environmental protection activities, and environmental protection investments from general government through environmental protection activities against investment orders. Environmental protection of the total economy in Europe 2015-2017. The issue that will be discussed is regarding the variables that influence changes in the effect of investment environmental protection on activities in Europe in 2015-2017. The purpose of this research is to prove the influence of environmental protection investment from companies as additional producers by environmental protection activities and activities, environmental protection investments as specialists and secondary producers by environmental protection activities, and environmental protection investments from general government in environmental protection investment guarantees. from the European economy in 2015-2017. To test and prove this hypothesis, an empirical test was conducted in the form of Q Square prediction with Smart PLS version 3.3.3 regarding the influence of the activity subsector. The method used in studying the data may be a combination of secondary data derived from European Statistical Recovery Dashboards. The method used to analyze the data is the statistical data method. The results showed that not all variables affect the protection of the investment environment for activities in Europe. This can be proven from the statistical value of 26,346> from the table value of 2,028, which means that investment in environmental protection from the public government through environmental protection activities (X1) has a positive and significant effect on orders for investment in environmental protection from the total economy in Europe. Environmental Protection Investment from Companies as Specialists and Secondary Producers by Environmental Protection Activities (X2) is an independent variable that has a positive and significant influence on the Committee on Environmental Protection Investment for the Total Economy in Europe. This can be proven from the statistical value of 20,492> from the t table value of 2,028. A The environmental protection investment of the company as an additional producer by environmental protection activities and activities (X3) is an independent variable that has a positive and significant effect on the Total Economic Environmental Protection Investment Restaurant in Europe. This can be proven from the statistical value of 11,003> from the t table value of 2.028.

1. Introduction

Development and the environment have a reciprocal relationship. In development, humans are consumers who play an active role in the process of utilizing natural resources. Humans are very dependent on natural resources and the sustainability of natural resources is very much influenced by human activities. Human efforts to improve the economy must be accompanied by efforts to maintain and improve environmental quality. The problem of environmental pollution is an issue that is currently a public concern. The environmental activist organization Wahana Lingkungan Hidup Indonesia (WALHI) in 2012 stated that the highest actors who destroy the environment are companies, especially the mining and plantation sectors. Second, is the government? Third, the combination of company and government, and the last position is society. The issue of the environment is one of the prima donna in accounting because the information disclosed by the company will affect its reputation and business sustainability in the future. The issue of the environment has attracted the interest of many researchers to examine the relationship between environmental performance and firm value.

Utomo *et al.* (2017) found that there was a positive influence between environmental performance and firm value as measured using Tobins'Q. Anggraeni (2015) [1] found that disclosure of greenhouse gas (GHG) emissions and environmental performance had a positive effect on firm value.

The large number of studies related to environmental performance and company values attract researchers to find out what factors can affect environmental performance and company value. Several studies have found that innovation in the form of R&D and investment in environmental preservation are factors that can affect environmental performance and corporate value. The ability of companies to develop and exploit their innovative capabilities is widely recognized as a determinant of corporate value and competitive advantage (Bettis and Hitt, 1995; Helfat and Peteraf, 2003; Voss, 1994) [2, 9]. Carvalho *et al.* (2018) [3] obtained the observation that the concept of innovation and environmental preservation is very dependent and very important for sustainability. The increasing attention of companies to environmental problems is also motivated by their awareness that these natural resources are limited, so it is important to manage natural resources more effectively and efficiently in the company's business processes (eco efficiency) in order to maintain their business life cycle (sustainable) (Anggaraeni, 2015).

2. Literature Review
2.1 Environmental protection investment of the total economy
Kuo *et al.* (2010) [6] conducted a study to provide further empirical evidence through the Japanese case regarding the relationship between investment in environmental conservation and operational efficiency. Based on the analysis of Kuo *et al.* (2010) [6], there is a positive and significant correlation between the company's environmental conservation costs, net income and economic benefits from environmental preservation, this shows that the implementation of long-term environmental conservation of companies has had a positive effect on company profits in the case of Japan between 2001 and 2006. The relationship between the company's environmental conservation costs and CO2 emission reduction is positively correlated but insignificant, which means that spending on environmental conservation of the company has an impact on reducing CO2 emissions but that effort is not sufficient. In addition, the research results of Kuo *et al.* (2010) [6] also show a positive correlation between environmental conservation costs and total CO2 emissions.

Research conducted by Hyo (2017) states that the cost of environmental conservation has a negative effect on three measures of eco efficiency (environmental intensity, carbon productivity, and return on carbon). Based on the description above, this study was conducted to confirm the results of previous research related to the relationship between investments. research and development (R&D) and environmental investment with firm value and eco-efficiency. This research is also expected to provide practical benefits to the industrial world in terms of increasing company value through eco-efficiency which is influenced by research and development (R&D) investment and environmental investment.

2.2 Investments in environmental protection from general government through environmental protection activities
The authority of the Regional Government in administering government affairs is currently regulated in Law Number 23 of 2014 concerning Regional Government. Regional governments are given the authority to carry out government affairs which fall under their authority, except for government affairs which are determined by this Law to be government affairs. In relation to the administration of government affairs concerning the relationship of authority between the Government and provincial, district and city governments or between regional governments which are interrelated, dependent, and synergistic, the distribution is based on the criteria of externality, accountability and efficiency by taking into account the harmony of relations between levels of government. Environmental protection and management as a concurrent government affair can also be seen in Chapter IX Article 63 of Law no. 32 of 2009 concerning Protection and Management of the Environment (State Gazette of the Republic of Indonesia of 2009 Number 140, Supplement to State Gazette of the Republic of Indonesia Number 5059) related to the Duties and Authorities of the Government and Regional Governments.

2.3 Environmental protection investments from companies as specialists and secondary producers by environmental protection activities
Environmental investment by companies is a preventive action or protection effort in environmental management and reduces the company's environmental impact, or commonly known as prior environmental investment (Nakamura, 2011). In this case, the company incurs a number of costs to carry out green management in an effort to preserve the environment and take precautions against environmental pollution so that it can achieve good environmental performance. According to Tambunan (2010) [8], environmental investment priorities are directed at decisions to minimize energy use and minimize emissions. The balance of the flow of materials and energy in the post-investment production process aimed at improving the physical and monetary situation is certainly expected by decision makers to be significant and long-term changes, which are profitable monetarily and physically, and do not need to be repeated.

Environmental investment has five perspectives (Hansen and Mowen, 2009) [5], namely minimizing the use of raw materials, minimizing the use of hazardous materials, minimizing energy for production and product use, minimizing the release of residues, and maximizing opportunities for recycling. By referring to the five perspectives above, companies can increase their legitimacy in the eyes of the community by creating environmentally friendly products and production processes that are free from environmental damage. Increasing product sales and attracting investors can easily be achieved when public trust in the company increases. This is in line with Yuliusman (2008) which states that companies are expected to implement environmental management that must be understood to maintain the sustainability of their business life. To reduce the negative impact of the company, it is necessary to improve environmental performance, invest in environmentally friendly technology, and encourage a clean production process.

2.4 Environmental protection investments from companies as producers additional to environmental protection activities and activities

Announcement of company activities in environmental investment, such as production processes or product launches that are more environmentally friendly is usually accompanied by large initial capital (Shortt, 2012). However, nowadays many companies are starting to do it to build their image of caring for the environment and as a responsibility to its stakeholders.

The demand for consumer goods that never runs out has led to the development of companies that produce goods needed by society. The more companies that develop, the more advanced the technology used. This tends to cause problems related to the environment, such as environmental pollution caused by waste, emissions and toxins released by factories. This environmental problem is a serious concern, both by consumers, government and investors. So, not only the government, companies also have the responsibility to preserve the environment and the social life of the community. Investments in the environmental sector are starting to get more attention from the public and the government appreciates them by giving awards for the environmental performance of a company. This shows that good environmental performance is a reflection of the quality and quantity of environmental investments made by companies (Claver *et al*, 2007; Clarkson *et al*, 2011; Epstein and Roy, 1998). Consequently, several institutions give special awards for companies that care for the environment. PROPER is a form of award given by the Ministry of Environment to companies that are serious about investing special funds on environmental issues so that PROPER can be used to proxy environmental investment.

3. Method

This study uses data analysis methods using Smart PLS version 3.3 software. Running on the computer media. Secondary data regarding the effect of environmental protection investment from companies as additional producers by environmental protection activities and activities, investment in environmental protection from companies as specialists and secondary producers by environmental protection activities, investment in environmental protection from the public government through environmental protection activities on the formation of environmental protection investments from Total Economy in Europe 2015-2017 is sourced from European Statistics Recovery Dashboard data. Measurement models are used to test validity and reliability, while structural models are used to test causality (hypothesis testing with predictive models).

4. Result and Discussion
4.1 Result
4.1.1 Descriptive Data

Following are the test data using the Smart Pls 3.3 statistical tool, the results show descriptive statistics of the variables of Environmental Protection Investment from Public Administration through Environmental Protection Activities (X1), Environmental Protection Investments from Companies as Specialists and Secondary Producers by Environmental Protection Activities (X2), Investments Environmental Protection From Companies As Additional Producers By Environmental Protection Activities And Activities (X3), And Environmental Protection Investments From The Total Economy (Y). Where the mean will be found, the median, minimum value, maximum value, standard deviation, excess quartosis, and slope of each variable and from a total of eighty (80) samples. The results show:

Table 1: Descriptive Statistics

	No	Missing	Mean	Median	Min	Max	Standard Deviation	Excess	Kurtosis	Skewness
X1	1.000	0.000	1430.315	200.000	1.100	20455.7	3906.345	12.741	3.702	0.00
X2	2.000	0.000	1736.72	212.100	0.000	20872.6	4460.982	10.402	3.354	0.00
X3	3.000	0.000	2305.75	330.800	8.100	28710.3	5732.223	11.084	3.443	0.00
Y	4.000	0.000	5448.531	654.500	0.000	70038.7	14025.384	11.469	3.517	0.00

Source: Results of processing with SmartPLS 3.3.3

X1 = Investment in Environmental Protection from Public Government through Environmental Protection.

X2 = Environmental Protection Investments From Companies As Specialists And Secondary Producers By Environmental Protection Activities.

X3 = Environmental Protection Investments From Companies As Producers Additional To Environmental Protection Activities And Activities.

Y = Environmental Protection Investment From Total Economy

Based on table 1, it can be seen that the average value of the sector level of Environmental Protection Investment from Public Government through Environmental Protection Activities is 1430,315 with a minimum value of 1,100 and the highest value of 20455.7. Environmental protection investment from companies as specialists and secondary producers by environmental protection activities with an average transaction value of 1736.72 with a minimum value of 0 and the highest value of 20872.6. Environmental Protection Investment from Companies as Additional Producers by Environmental Protection Activities and Activities with an average transaction value of 2305.75 with a minimum value of 8,100 and the highest value of 28710.3. Environmental Protection Investment from Total Economy (Y) with an average production value of 5448,531 with a minimum value of 0 and the highest value is 70038.7

The results of the t-statistic value in the path coefficient table are presented in Figure 1 below:
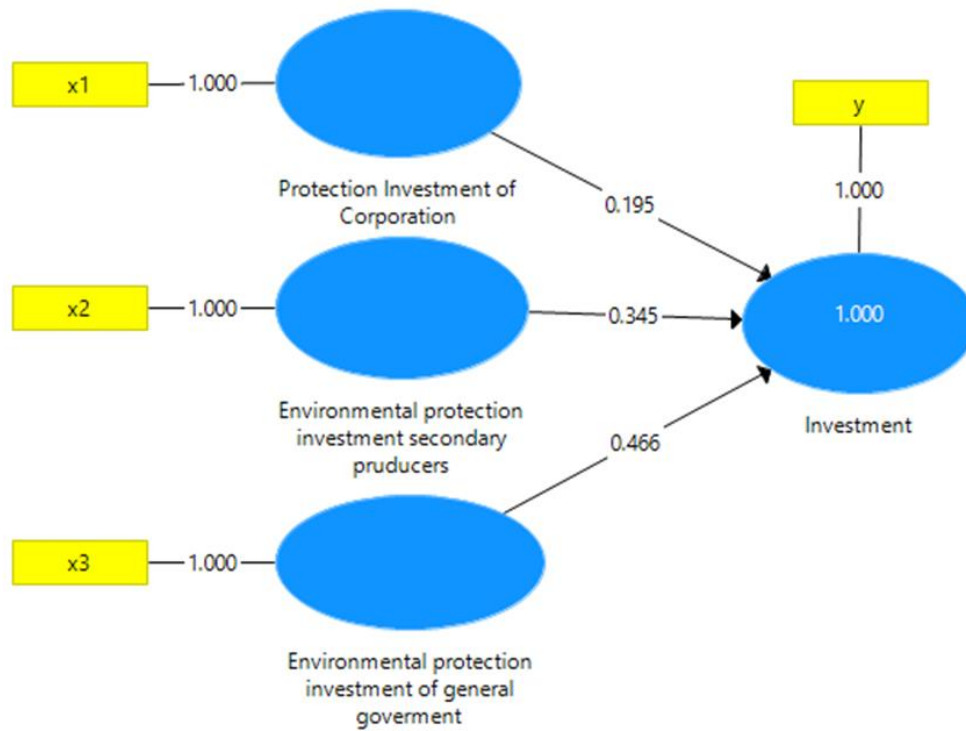
Fig 1

Based on the model in Figure 1, it can be seen that Environmental Protection Investment from Public Government through Environmental Protection Activities, Environmental Protection Investment from Companies as Specialists and Secondary Producers by Environmental Protection Activities and Environmental Protection Investments from Companies as Additional Producers by Environmental Protection Activities and Activities play a major role in Total Environmental Protection Investment From Total Economy. The results of hypothesis testing are in the following table:

Table 2

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
Environmental protection investment of general goverment -> Investment	0.466	0.467	0.018	26.346	0.000
Environmental protection investment secondary pruducers -> Investment	0.345	0.348	0.017	20.492	0.000
Protection Investment of Corporation -> Investment	0.195	0.192	0.018	11.003	0.000

Source: PLS output

Based on the results of hypothesis testing, it can be seen that Environmental Protection Investment from Public Government through Environmental Protection Activities (X1) is an independent variable that has a positive and significant effect on the formation of Total Gross Domestic Product. This can be seen from the t statistical value of 26.346> from the t table value of 2.028 and this is evidenced by the original sample value of 0.00 and a significance of 0.00 <0.05, which means that road transportation (X1) has a positive effect. and significant to the formation of the total investment in environmental protection from the total economy. Environmental Protection Investment from Companies as Specialists and Secondary Producers by Environmental Protection Activities (X2) is an independent variable that has a positive and significant effect on the formation of the Total Environmental Protection Investment from the Total Economy. This can be seen from the t statistical value of 20,492> from the t table value of 2.028 and this is evidenced by the original sample value of 0.00 and a significance of 0.00 <0.05, which means that investment in environmental protection from the public government through environmental protection activities (X1) has an effect. positive. and significant to the formation of the total investment in environmental protection from the total economy. Environmental Protection Investment from Companies as Additional Producers by Environmental Protection Activities and Activities (X3) is an independent variable that has a positive and significant effect on the formation of Environmental Protection Investment from the Total Economy. This can be seen from the t statistical value of 11.003> from the t table value of 2.028 and this is evidenced by the original sample value of 0.00 and a significance of 0.00 <0.05, which means that Air Transportation (X1) has a positive and significant effect on the formation of Total Environmental Protection Investment. Economy. The inner model evaluation is presented in table 2 below:

Table 3

	Environmental investment of government	Environmental investment secondary	Investment	Protection Investment of Corporation
Environmental protection investment of general government			17.357	
Environmental protection investment secondary producer's Investment			12.937	
Protection Investment of Corporation			3.632	

Based on Figure 2, it can be seen that the dominant F Square value comes from the Environmental Protection Investment variable from the Public Government through Environmental Protection Activities (X1)

4.1.2 Predictive Relevance
The result of Predictive Value show in Table 3 as a follows

Table 4: The predictive relevance

	Environmental investment of goverment	Environmental investment secondary	Investment	Protection Investment of Corporation
Environmental protection investment of general government			0.466	
Environmental protection investment secondary pruducers			0.345	
Investment				
Protection Investment of Corporation			0.195	

Source: PLS Output

Based on Table 3, it can be seen that there is a direct relationship between each independent variable and the dependent variable.

4.1.3 Determination Coefficient Test Results
The result of Adjusted R2 as a follows

Table 5: The determination coefficient

	R Square	R Square Adjusted
Investment	1.000	1.000

Source: PLS Output

Based on the test results of the coefficient of determination in Table 4, the R Square value is 1,000 and the Adjusted R Square value is 1,000.Thus, the R Square value illustrates that all independent companies consisting of Environmental Protection Investments from Public Government through Environmental Protection Activities (X1), Protection Investment Environment of Companies as Specialists and Secondary Producers by Environmental Protection Activities (X2), and Investments in Environmental Protection from Companies as Additional Producers by Environmental Protection Activities and Activities (X3) in this study are able to represent Environmental Protection Investments from the Total Economy in Europe (Y) as the dependent variable is 100% while the rest is not influenced by other variables outside this equation or the variables studied.

4.2 Discussion
Investment plays an important role in improving economic processes, especially investment in the environmental protection sector. Investments have various impacts on economic development goals, such as employment, productivity, property value, commercial activity, and tax revenue. From the relevance prediction, it can be seen that the level of protection of the investment environment is the variable that has the greatest influence on economic growth. This can be shown by looking at the predicted value

The level of protection of the investment environment has a positive effect on economic growth, meaning that the higher the level of protection of the investment environment, the higher the rate of economic growth. There are several factors that make people prefer protecting the investment environment, such as:

- Contribute to the development of the environment and surrounding communities.
- Capturing quality and potential human resources.
- Maintain good relationships with the community outside the company.
- Maintain good relationships with stakeholders outside the company.

Based on the results of hypothesis testing using the T test, it can be seen that not all variables have an effect on economic growth. This can be proven from the t statistical value of 26.346> from the t table value of 2.028 and this is evidenced by the original sample value of 0.00 and a significance of 0.00 <0.05, which means that road transportation (X1) has a positive effect. And significant to the formation of the total investment in environmental protection from the total economy. Environmental Protection Investment from Companies as Specialists and Secondary Producers by Environmental Protection Activities (X2) is an independent variable that has a positive and significant effect on the formation of the Total Environmental Protection Investment from the Total Economy. This can be seen from the t statistical value of 20,492> from the t table value of 2.028 and this is evidenced by the original sample value of 0.00 and a significance of 0.00 <0.05, which means that investment in environmental protection from the public government through environmental protection activities (X1) has an effect. positive. And significant to the formation of the total investment in environmental protection from the total economy. Environmental Protection Investment from Companies as Additional Producers by Environmental

Protection Activities and Activities (X3) is an independent variable that has a positive and significant effect on the formation of Environmental Protection Investment from the Total Economy. This can be seen from the t statistical value of 11.003> from the t table value of 2.028 and this is evidenced by the original sample value of 0.00 and a significance of 0.00 <0.05, which means that Air Transportation (X1) has a positive and significant effect on the formation of Total Environmental Protection Investment. Economy.

5. Conclusions

This study has shown that there are theoretical and practical reasons why protecting the investment environment in general has little beneficial effect on the broader economy. Even under certain extreme conditions, effects can be anticipated. And in this study shows that the protection of the investment environment has a positive and significant effect on the formation of Environmental Protection Investment from the Total Economy. Given the importance of the investment environmental protection sector, it is necessary to identify the main problems affecting the efficiency of the investment environmental protection sector and take corrective action to promote economic growth and development from protecting the investment environment. This research has implications for the government to provide convenience and convenience to investors who want to invest in Environmental Protection from the Public Government through Environmental Protection Activities, Environmental Protection Investments from Companies as Specialists and Secondary Producers by Environmental Protection Activities and Environmental Protection Investments from Companies as Additional Producers. By Environmental Protection Activities And Activities.

6. References

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