

ANALYSIS OF PERCEPTION FACTORS TO PARTICIPATION LEVEL IN THE ASSESSMENT OF EIA DOCUMENTS (Case study in North Sulawesi, Indonesia)

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ABSTRAK

EIA is an instrument to identify, predict, and interpret a development or activity's environmental impact. In the process, the EIA assessment is carried out by EAC to be aligned with sustainable development and avoid conflict with the community. However, many of EAC members involved in the assessment do not understand the duties and responsibilities they carry because of the different perceptions, which can lead to a conflict and decrease the level of participation. So this research aims to analyze the influence of the factors forming the perception consisting of internal and external factors and the perception itself on the participation of the EIA Assessment Commission (EAC) in assessing environmental documents in North Sulawesi. Respondents in this study were 52 people who were then conducted in-depth interviews, and the results were analyzed using Partial Least Square (PLS). The results show that the internal factors of integrity (path coefficient: 0.337; t-value: 1.929; p-value: 0.027) and work experience (path coefficient: -0.317; t-value: 1.732; p-value: 0.042) have a significant positive effect to participation. For external factors, all components are policy support (path coefficient: -0.237; t-value: 1.837; p-value: 0.033), budget availability (path coefficient: 0.342; t-value: 1.959; p-value: 0.025), information availability (path coefficient: -0.344; t-value: 1.896; p-value: 0.029), infrastructure availability (path coefficient: 0.223; t-value: 1.753; p-value: 0.04), and training components (path coefficient: -0,432; t-value: 1,792; p-value: 0.037) has a significant positive effect on participation. Thus, the PLS results also show that perspectives have a significant positive relationship to EAC participation in assessing environmental documents to improve the quality of documents and align with Sustainable Development.

Keywords: EIA, PLS, participation, perception, sustainable development

1. INTRODUCTION

An increasing population is followed by an increasingly rapid development that has created environmental problems such as scarcity of resources and deforestation, air pollution (Yang et al. 2018) and climate change. If this continued, then there would be no resources left for humans in the near future. So, it problems encourages the emergence of an Environmental Assessment (EA)

concept to assess or provide considerations related to policies, plans, programs and projects that will be carried out. Environmental assessment requires tools in the process to make it easier for practitioners to assess environmental conditions. Several tools in assessing the environment include Environmental Impact Analysis (EIA), Multi-Criteria Decision Analysis and Risk Management, Life Cycle Analysis (LCA), and Environmental Risk Assessment (Andersson et al. 2016).

Indonesia has started implementing environmental management since the issuance of Law no. 4 of 1982 concerning Basic Provisions for Environmental Management. Then it was strengthened by the enactment of Law no. 23 of 1997 concerning Environmental Management (UUPLH) which was later replaced by Law No. 32 of 2009 concerning Protection and Management of the Environment (UUPPLH). One such instrument is the Environmental Impact Analysis (EIA). It is a legal instrument to identify, predict, and interpret a development or activity's environmental impact to formulate preventive measures (Ferrer, 2016). In the process, EIA is a document that the initiator of the activity must prepare before the activity occurs or is carried out so that the positive and negative impacts of the activities carried out can be considered and assessed.

The EIA document's assessment is carried out by the EIA Assessment Commission (EAC), which usually consists of central and local governments, experts in the field of environment, and experts related to planned activities that are certified as EIA assessors. The EIA document assessment usually includes a discussion of its respective sections, namely the Terms of Reference (ToR), Environmental Impact Analysis (ANDAL), and Environmental Management and Monitoring Plans (RKL-RPL). In conducting the assessment, EAC members must be guided by Sustainable Development principles, which consists of the concept of the Three Pillars of Sustainability, which consists of economic growth, environmental sustainability, and social equality (Parmawati, 2018). The objectivity of the EAC members is essential in assessing the EIA document. However, in fact, in the assessment process, representatives of the elements in the EAC members involved in it do not understand the duties and responsibilities that are carried out as part of the EAC members because they have different perceptions, which can lead to conflict (Hiariey, 2013) and lowering participation rates.

Perception, according to many researchers, has several meanings. According to Sarwono (2000), perception is an individual's ability to distinguish, classify, and focus thoughts on an object and may produce different results even though the object of observation is the same. It depends on the value system and characteristics. The personality of the individual concerned. Many factors also influence perception. According to Sugiharto (2001), generally, four essential things must be considered in perception: objects, time, senses, internal factors, and external factors. Research from Isti et al. (2017), Ningsih et al. (2019), and Beki et al. (2019) stated that perceptions positively and significantly affect the level of community participation. A good perception will further increase the participation of the community to participate in activities actively so that the purpose of this research is to analyze the influence of the factors forming the perception consisting of internal and external factors as well as the perception itself on the participation of the EIA Assessment Commission in assessing environmental documents in North Sulawesi with the hope of producing quality environmental documents and realizing sustainable development in North Sulawesi Province.

2. METHODS

This study uses an explanatory research approach combined with a descriptive approach to see the relationship between variables, namely perceptions and participation of the EIA Assessment Commission of North Sulawesi Province. Determination of the number of respondents who will be interviewed using the Slovin formula with a confidence level of 95% and obtained 52 respondents. Furthermore, purposive sampling was carried out from the existing population with several conditions, namely:

1. Representing the EIA Assessment Commission from agencies in North Sulawesi Province and Regency / City that already have licenses,
2. Members of the Provincial EIA Assessment Commission Secretariat,
3. Part of the Technical Team of the EIA Assessment Commission,
4. Have attended an environmental document assessment meeting.

Types of primary data and secondary data are used in this study. So, a research instrument is needed to be able to collect the data. The data obtained can be analyzed to become part of the information to be conveyed in this study (Sholihah, 2020). Primary data were obtained through distributing questionnaires, in-depth interviews and direct field observations. Secondary data were obtained from a literature study of environmental documents assessed by the North Sulawesi EIA Assessment Commission and government policies from North Sulawesi Province. The data obtained is then analyzed using Partial Least Square (PLS) to show the relationships and relationships between variables to develop existing theories.

3. RESULT AND DISCUSSIONS

Perception is influenced by many factors, both internal and external factors. Internal factors that become variables in this study are gender, age, education level, family dependents, work experience, and integrity. Meanwhile, external factors that influence perceptions include information availability, facilities availability, budget availability, training, and policy support from the local government. Then the factors forming the perception were analyzed using Partial Least Square (PLS). The results of the analysis can be seen in Figure 1 below.

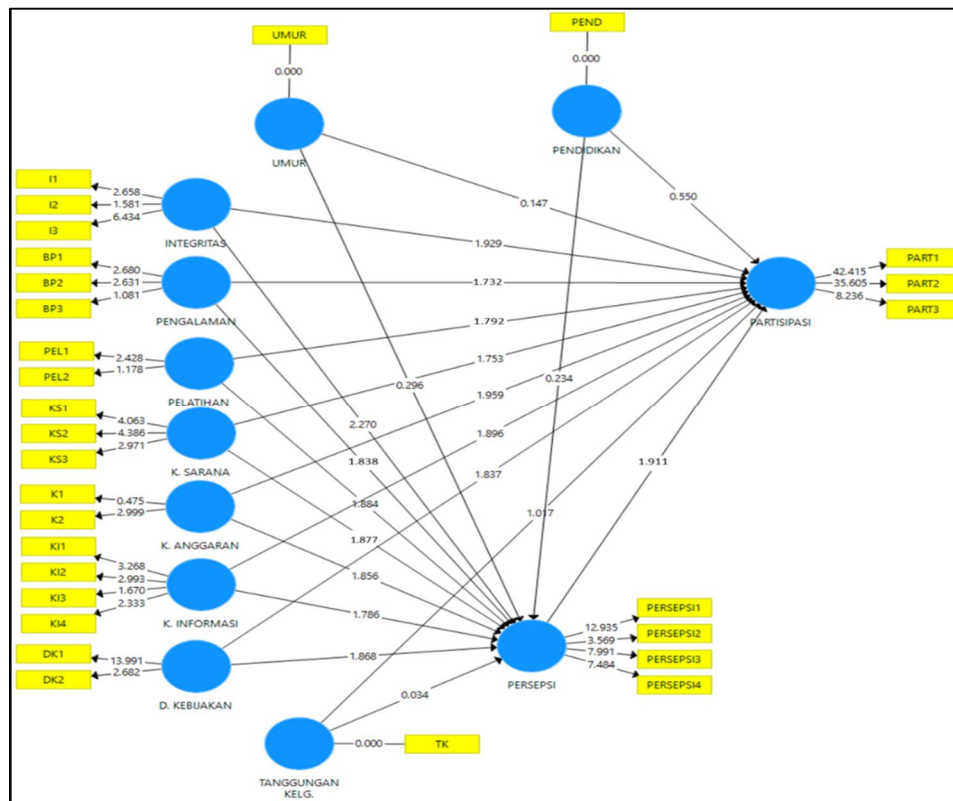


Figure 1. Partial Least Square Result

3.1 Internal Factor

The PLS analysis above shows the relationships between internal factors, external factors, and perceptions of the level of participation of the EIA Assessment Commission. The internal factor of integrity has a path coefficient of -0.337 with a t value of 1.929 and a p-value of 0.027. It shows that integrity has a significant positive effect on the level of participation. The higher the level of integrity, the more EAC participation will increase. It is in accordance with Gea (2016) and Al-Abrow et al. (2019), who found that integrity is a component related to leadership traits and a willingness to be involved in various work-related activities in an organization. So that in this context, high integrity encourages EAC to be fully involved, deepen every job, and express their opinion specifically because integrity makes a person consistently do what he thinks or says and vice versa (Gamble, 2010). Work experience also positively influences EAC participation with a path coefficient of -0.317 and a statistical t value of 1.732, and a p-value of 0.042. So, the higher the EAC work experience, it will increase the participation. Work experience is taken into consideration to determine the individual's relative performance (Quinones et al. 2001).

Other components such as age, education level, and a number of family dependents are components that do not have a significant effect on EAC participation in assessing environmental documents. The age range of EAC members varies from young to old so that anyone of any age, as long as they have the qualifications in assessing environmental documents, is allowed to participate in it, of course, following applicable regulations. It also applies to educational levels, where the

majority of EAC members' education level is Bachelor (S1), and some have Masters / Doctoral/Professor Education levels. However, what is important here is the work experience they already have; the higher the flight hours of EAC members in assessing environmental documents, the more often they will be involved in the assessment according to their expertise.

Internal factors of respondents that have a significant influence on EAC participation are work experience and integrity. The observations that have been made show that in an environmental document assessment meeting, EAC members who have more experience are actively involved in discussion meetings and are active in conveying their aspirations in discussion meetings related to the assessment of the ANDAL Document and RKL-RPL through input and suggestions for document corrections. If the appraiser cannot attend, he will continue to contribute by submitting input and suggestions in writing to the EIA Appraisal Commission's secretariat. Individuals who have a lot of work experience will find it easier to understand a similar job compared to people who have little or no work experience. Work experience will show how much the ability, skill, and commitment of the individual (Afrilyan, 2017). Also, integrity plays an important role in increasing participation because integrity is related to responsibility. The EIA Assessment Commission (EAC) has a big responsibility to achieve a balance between the environment and the economy in its territory while still minimizing the possibility of conflict in the community. In environmental document assessment, there are at least three important pillars, namely professionalism, accountable processes, and integrity, to create proper environmental documents and produce balanced policies. Besides, there is a need for calculating the economy that results from development known as economic valuation. The economy will never exist without natural resources and the environment. Every economic activity must contact one or even both at once (Parmawati, 2019).

3.2 External Factor

Based on the results of the PLS analysis that has been carried out, it shows that policy support has a significant effect on EAC participation in assessing environmental documents with a path coefficient of -0.237; the value of t statistic is 1,837; and p-value of 0.033. This policy support is related to the vision and mission of the province of North Sulawesi, where one of the missions is to strengthen infrastructure development based on sustainable development principles. It is evidenced by the issuance of the Governor of North Sulawesi Regulation Number 14 of 2018 concerning Determination of Types of Business Plans and Activities that Require Environmental Management and Environmental Monitoring Efforts. Budget availability also significantly affects EAC participation in assessing environmental documents with a path coefficient of 0.342, a t statistic value of 1.959, and a p-value of 0.025. This budget's availability is related to the compensation that EAC will obtain because appropriate compensation can increase job satisfaction, thus indirectly increasing the level of participation in environmental document assessment (Laba et al., 2015; Supatmi, 2011). Other components such as the availability of information also have a significant effect on EAC participation in assessing environmental documents with a path coefficient of -0.344 with a statistical t value of 1.896 ($t > 1.645$) and a p-value of 0.029 ($p < 0.05$). Information plays an important role in increasing participation, with clear information through media such as brochures, leaflets and banners that can increase individual participation (Manalu et al., 2014). The availability of facilities affects EAC participation in assessing environmental documents, with a path coefficient of 0.223 with a statistical t value of 1.753 ($t > 1.645$) and a p-

value of 0.04 ($p < 0.05$). According to Pudyastuti and Mulyaningsih (2021), infrastructure has a moderate effect on increasing school participation. The training component also has a significant effect on the participation of EAC members in assessing environmental documents with a path coefficient of -0.432 with a statistical t value of 1.792 ($t > 1.645$) and a p -value of 0.037 ($p < 0.05$). The training that is carried out can show that the individual has the right skills to improve the quality of Human Resources (HR). The increasing number of training being followed can develop individual skills in solving problems, providing motivation, and being active in decision-making (Kambey and Suharmono, 2013).

3.3 Relationship between Perception and Participation of EAC member

Based on the results of the Partial Least Square (PLS) analysis that has been carried out (Figure 1), it shows that perspective and participation have a significant relationship. It is indicated by the path coefficient of 0.375 with a statistical t value of 1.911 ($t > 1.645$) and a p -value of 0.028 ($p < 0.05$). The assessor's perspective variable has a significant positive effect on Appraiser Participation, meaning that the higher the Appraiser's Perception, the higher the Appraiser's Participation. Participation is considered an important factor for local governments' success and prosperity, and community participation can improve the quality of good governance. Research from King and Strivers (1998), Bowman and Kearney (2007), and Yang (2006) states that perceptions have a strong relationship with community participation. So it can be said that perception is the main factor influencing citizen participation in local government activities (Kweit and Kweit, 2007). If the EAC members' perceptions are positive towards the vision and mission and the local government's policies supported by external supporting factors, EAC members' participation in assessing environmental documents can increase. It can improve the quality of environmental documents that have been submitted, accelerate the development of infrastructure and the economy of South Sulawesi Province while still guided by Sustainable Development.

The perception in this research is the assessor's view or assessment in seeing a rule or activity in terms of the impact that will be generated and its management following the EIA study. This positive relationship between perspective and participation is also supported by the study of Stephanus et al. (2015), which states that a good perception will be followed by good participation from the participants. A person's perception of an activity is the basis or main basis for the emergence of a willingness to be involved and take an active role in every activity.

4. CONCLUSIONS

This study concludes that internal, external and perceptual factors influence participation. However, only work experience and integrity have a significant positive value on EAC's participation in assessing environmental documents from the internal factor component. However, the external factor components, including information availability, facilities availability, budget and policy support, and training, have a positive effect on EAC participation in the assessment of EIA documents. Both internal and external factors, which are included in the factors that influence perception, also significantly influence participation. Thus, it is clear that the PLS results show that the perception of the EAC has a significant positive effect on Appraiser Participation, which means that the higher the Appraiser's Perception will affect the higher the Participation of EIA Assessors so that it can produce quality environmental documents.

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