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# The Role of Stakeholders in Public Transportation Services Based on Information Technology

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**Abstract.** Public transportation in Sidenreng Rappang Regency faces various problems that affect the achievement of tax collection effectiveness. One phenomenon that is often encountered in matters relating to the public transportation tax system is the emergence of an unofficial terminal, irregular tax collection processes, lack of motivation and guidance to tax management officers so that they are less professional in their field duties and public transportation facilities and infrastructure are not yet optimal. For this reason, planning for priority strategies is needed to increase local revenue (PAD). The purpose of this study is to design a priority strategy for increasing local revenue (PAD) through public transportation taxes in Sidenreng Rappang Regency. The research method used is a mixed-methods method. Data were collected through observation and in-depth interviews with stakeholders. Then the data were analyzed using stakeholder analysis methods and process hierarchy analysis. Stakeholders involved in increasing public transport taxes in Sidenreng Rappang Regency are divided into two groups. The first group is the key players. Key player's group stakeholders must be more actively involved in planning and evaluating policy. The second group is the actors. Stakeholder group can bring risks, so their existence needs to be monitored and managed properly. To optimize the role of stakeholder actors, it is necessary to coordinate with key stakeholder groups in determining policy. The priority scale of the policy in increasing public transport taxes is as follows: 1) optimizing training and education programs in improving the quality of human resources and increasing the dissemination to taxpayers; 2) improve public transportation terminal facilities; 3) evaluating Regional Regulation Number 10 of 2010 concerning tax tariffs; and 4) cooperation between other agencies.

**Keywords :** *Stakeholders, Public Transportation, Taxes.*

## 1. Introduction

Regional autonomy is the right, authority, and obligation of autonomous regions to regulate and manage their own government affairs and the interests of local communities in accordance with the legislation. Autonomy is expected to accelerate economic growth and regional development, reduce disparities between regions and improve the quality of public services to be more efficient and responsive to the needs, potential, and characteristics of each region [1]. Regional income comes from local taxes. Local tax is one of the potentials of regional income that can be extracted for the increase and sustainability of the regional budget that is levied by the State to service users [2]. Sidenreng Rappang Regency is located in the cross-region of South Sulawesi, which is a transit point for various public transportation from various regions. This should be a potential for terminals in Sidenreng Rappang Regency to get a large public transportation tax. But in the fact that public transportation tax in Sidenreng Rappang Regency faces various problems that affect the achievement of collection effectiveness.

One of the phenomena that are often encountered in matters related to public transportation taxes is the emergence of "shadow" terminals in various places apart from official terminals provided by the government, irregular collection processes, lack of motivation and guidance to tax management



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officers so that they are less professional in duty in the field. The use of information technology has not been optimal so that public transportation tax collection is still not significant. With these problems, it is possible that the management of public transportation terminals does not display good service quality. This problem also makes the revenue from public transportation tax not run optimally which has an impact on the realization of public transportation tax revenue that does not reach the target planned/set by the Sidenreng Rappang Regency Government. For this reason, a priority strategy is needed to increase local revenue (PAD) through public transportation taxes in Sidenreng Rappang Regency by using process hierarchical analysis. This research is very important to be carried out because it can be a reference in the formulation of a policy to increase public transportation taxes by considering social, economic, facilities and institutional factors.

**2. Method**

This method used a combination of research methods (*mixed methods*). The combined method hereinafter abbreviated as Metkom in [3] is a research method that combines quantitative methods and qualitative methods to be used together in research activity, in order to obtain more comprehensive, valid, reliable, and objective data [4].

1. Analysis Stakeholders

The Stakeholders analysis is carried out related to transportation management, especially case studies in Sidenreng Rappang Regency. Each stakeholder plays an important role in formulating a policy, but each stakeholder has a different level of importance and influence. Therefore, Stakeholders analysis in this study needs to be done. Stakeholders analysis is required to recognize and identify stakeholders according to their importance in relation to existing issues or resources.

Next step is a grid actor mapping (Figure 1) to determine the level of importance and influence of each and the position of whether it is included in the category of *subject*, *player*, *standart*, or *actor* [7]. The selection of respondents was done purposively based on the expertise and knowledge possessed. Respondents chosen in this study Sidenreng Rappang Regent, head of Sidenreng Rappang Regency regional parliaments (DPRD), head of Sidenreng Rappang Regency Regional Development Planning Agency (BAPPEDA), head of Sidenreng Rappang Regency financial management agency, head of Sidenreng Rappang regional department of transportation, and head of Sidenreng Rappang department of public works, Non-Governmental Organization, Academics, and Community Leaders.

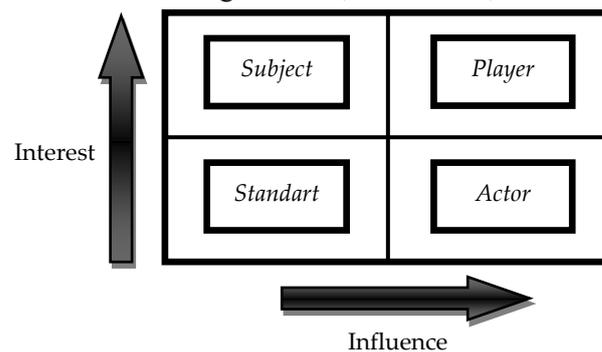


Figure 1. Stakeholders influence and interest matrix  
Source : Modification data, (2020).

2. Analysis of Hierarchy Process

Analysis of Hierarchy Process is an approach to prioritize policy analysis in the appropriate spatial planning with structuring an issue as a hierarchy, where the *stakeholders* are at the highest level because their power to influence the final outcome is a dominant factor. The decision-making process basically has an alternative. The main tool of process hierarchy analysis (AHP) is a functional hierarchy with its main input is human perception, and the hierarchy of complex and unstructured problems is solved into groups that form a hierarchy [8]. The hierarchy of determining priority

strategies for increasing PAD through the taxation of public transport terminals in Sidenreng Rappang Regency can be seen in Figure 2.

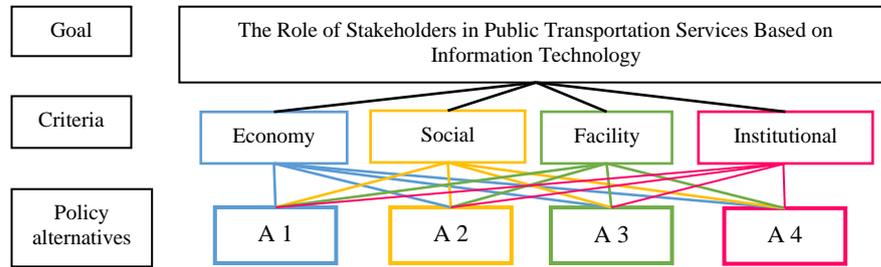


Figure 2. The hierarchy of determining priority strategies for tax of public transportation services management  
 Source : Primary data process, (2020).

### 3. Basic Theory

#### 3.1. Smart Mobility

Smart mobility is a city development concept as part of the smart city concept, which is a transportation development concept based on information and communication technology that is expected through information technology, public transportation services can be easy, safe, comfortable, and fast service [9]. Meanwhile, according to [10], a smart city with a smart transportation system will provide easy travel for the community through the availability of innovative and sustainable public transportation facilities that can have a low environmental impact. There are three indicators of smart mobility according to [11], namely, mixed capital access, prioritized clean and non-motorized options, and integrated ICT[12].

#### 3.2. Smart Government

Smart government is the management of business processes related to government and administration with information and communication technology [13]. Information system governance that is interconnected and integrated aims to improve performance in carrying out public services' tasks and functions more effectively and efficiently [14]. This includes an e-government portfolio embracing big data and open data. The government uses e-Governance to increase public administration systems and service delivery [15]. The development of digitalization of government or what is called e-Government involves different components that tend to be interrelated. Ignoring these components' linkages can lead to other components' failure, hence the need for integration. Examples of necessary components include the project life cycle, impact assessment, monitoring, and evaluation. It is important to note that there is no effective evaluation of the development of e-governance if there is or not monitoring and evaluation. Therefore, establishing an appropriate monitoring mechanism is very important because the data collected during the monitoring phase will be used for evaluation purposes [16].

#### 3.3. Tax of Public Transportation Services Management

The success of tax management requires developing innovative service models by utilizing advances in information technology [17]. Information technology plays a very strategic role in developing innovation [18]. Currently, the paradigm of public service delivery is changing, from face-to-face / counter-based service paradigm to independent service / virtual-based service that can be accessed anywhere and anytime. According to [19], information technology can provide convenience to the community so that the collection of local taxes and levies becomes more effective. The benefits of

implementing information technology can change the mindset and culture set from the leadership level to the service implementer [20]; [21]. The application of information technology in tax services can increase public satisfaction, compliance, and trust in public service institutions [22]; [23].

**4. Findings and Discussion**

**4.1. Level of Influence and Interest Stakeholders in Public Transportation Services Based on Information Technology**

The success of development in an area is strongly influenced by the form of responses arising from the stakeholders, so it can be known what and how an activity can be carried out, who is the culprit, as well as the situation and the conditions under which this can be done. Likewise, the increase in regional own-source revenue (PAD) through the public transport terminal tax in Sidenreng Rappang Regency will be successful if it is supported by a positive response from stakeholders consisting of the community, government, and non-governmental institutions.

**1. Identification the Role of Stakeholders**

The role is a dynamic aspect of the position if a person performs his rights and obligations in accordance with his position [24]. Increasing local revenue (PAD) is influenced by the role of stakeholders from local government agencies, community groups, academics, and the community. The results of the identification of stakeholders involved in increasing local revenue (PAD) in Sidenreng Rappang Regency are as follows.

- Sidenreng Rappang Regent. Sidenreng Rappang Regent is the stakeholder who has the authority to set and formulate policies in the imposition of regional taxes and charges.
- Sidenreng Rappang People Representative of Local Region (DPRD).
- Sidenreng Rappang Regency Regional Development Planning Agency (BAPPEDA).
- Sidenreng Rappang Regency financial management agency (BPKD).
- Sidenreng Rappang department of public works. Sidenreng Rappang department of public works is a government agency that has a role in drafting public transport infrastructure development policies and preparing budget financing for the process of building public transport infrastructure in Sidenreng Rappang Regency.
- Non-Governmental Organization (NGOs).

**2. Mapping Stakeholders**

Stakeholders in Sidenreng Rappang Regency have varying degrees of interest and influence, so they need to be clearly mapped. The purpose of stakeholder mapping is to help how to involve these stakeholders in achieving goals [25][26]. The results of in-depth interviews involving nine stakeholders consisting of local governments, non-governmental organizations, and the community. It is known that based on the influence (power) and interests (interests), the stakeholders in increasing public transportation taxes in Sidenreng Rappang Regency can be categorized into two, namely key players and actors. The map of Stakeholders can be seen in figure 3.

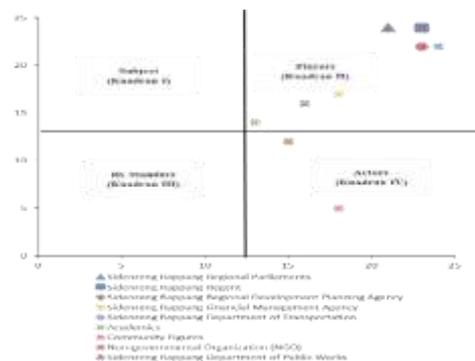


Figure 3. Stakeholders classification according to the level of influence and importance

Source: Primary data process, (2020).

- Stakeholders Key Players  
Stakeholders with a high level of interest and influence are classified as Key Players (Quadrant II). These stakeholders must be more actively involved in planning and evaluating a policy [27]; [7] and [28]. In accordance with the statement [29] key player group stakeholders are the most critical stakeholders.
- Stakeholders Actors  
Group of actors (in quadrant IV) is a classification of stakeholders who have low interest but have a strong influence. Stakeholders included in the actor group are Community Leaders and Non-Government Organizations. These stakeholders can bring risks, so their existence needs to be monitored and managed properly [7].

**4.2. Strategies for Tax of Public Transportation Services Management**

Planning for the selection program for a strategy for increasing public transport taxes in Sidenreng Rappang Regency is carried out through a process hierarchy analysis by synthesizing the relative interests between elements in the AHP hierarchy in the form of criteria and alternative policies.

1. Analysis of Priority Criteria in Increasing Public Transportation Terminal Tax

The strategy for increasing public transport terminal tax must consider various important factors such as economy, social, facilities, and institutional taking into account the opinions of stakeholders involved in increasing public transportation taxes in Sidenreng Rappang Regency. In determining the choice of a strategy for increasing the tax of public transportation terminals in Sidenreng Rappang District, pairwise comparisons are made on each economic, social, facility, and institutional criteria. Based on the results of the AHP analysis, social criteria (0.5439), which became the first priority in increasing public transportation terminal tax in Sidenreng Rappang Regency, then the second priority were facility criteria (0.2706), third priority was economic criteria (0.1219) and institutional criteria (0.0636) to fourth priority (Figure 4).

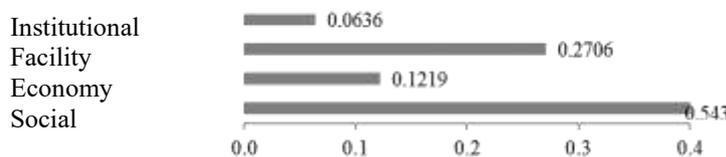


Figure 4. Priority scale of criteria for increasing public transport taxes in Sidenreng Rappang Regency  
Source: Primary data process, (2020).

2. Priority Policy Strategies in Increasing Public Transportation Taxes

The results of the overall process hierarchy analysis (AHP) with the economy, social, facility, and institutional criteria obtained a priority strategy for increasing public transport terminal taxes in Sidenreng Rappang District (figure 5).

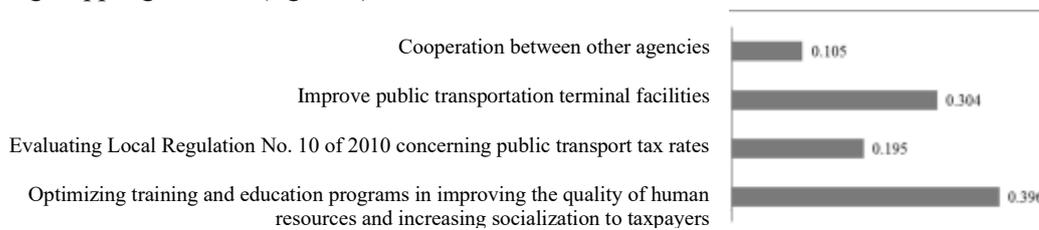


Figure 5. Priority Policy Strategy for Increasing Public Transportation Tax  
Source: Primary data process, (2020).

- Optimizing training and education programs in improving the quality of human resources and increasing socialization to taxpayers (1st priority)

The quality of human resources (HR) is closely related to the performance carried out and the results. The poor quality of human resources (HR) is an obstacle to the management of local taxes in Sidenreng Rappang Regency. Based on the results of the interview, it can be seen that the different quality of human resources at the Regional Financial Management Agency of Sidrap Regency is a factor that is a bit hindering in the framework of increasing the Sidenreng Rappang regional tax. The difference in the quality of human resources (HR) is due to differences in educational backgrounds and age differences between employees. Educational backgrounds have an impact on the way of thinking or understanding of different loyal individuals. Increasing the tax on public transportation terminals in the Regional Government, continue to disseminate information to public transportation companies with the aim of increasing the potential of public transportation entering the terminal. Therefore we need training and education programs to improve the quality of human resources and increase the socialization of taxpayers, in this case, public transportation companies.

- Improve public transportation terminal facilities (2nd priority)  
Facilities are an important factor in managing terminal fees. With adequate facilities, it is expected that taxpayers will feel comfortable and pay public transportation taxes according to their obligations.
- Evaluating Local Regulation No. 10 of 2010 concerning public transport tax rates (priority 3)  
Public transport tax rates are still relatively cheap if applied today. So that the current tax rate is expected to be raised in accordance with existing economic developments; therefore, the tariffs regulated in Regional Regulation Number 10 of 2010 must be revised to increase the tax value network that is charged to taxpayers.
- Cooperation between other agencies (4th priority)  
The success of increasing local revenue (PAD) in Sidenreng Rappang Regency certainly does not only come from one agency role alone. However, it requires cooperation with other agencies. Cooperation is now an important part because of the cooperation of each agency. It can build an understanding in formulating the policy of increasing the transportation terminal tax in Sidenreng Rappang Regency and can carry out direct supervision of the terminal tax in each tax collection place.

## **5. Conclusion**

Based on the level of influence and interest of stakeholders in public transportation services based on information technology in Sidenreng Rappang Regency, it is divided into two groups, namely stakeholder key players, who have strong influence and importance. Key players must continue to be involved in planning and evaluating policy. Stakeholders included in the group of key players are the Regional Government and academics and then stakeholder actors, who have high interests and low influence. Stakeholders of this group of actors can pose risks, so their existence needs to be monitored and managed properly. To optimize the role of stakeholder actors, it is necessary to have coordination or cooperation with key stakeholder groups in determining policy. The stakeholders included in the actor group are Non-Government Organizations and Community Leaders. The policy strategy in increasing public transportation tax in Sidenreng Rappang Regency, which becomes the first priority, is to optimize training and education programs in improving the quality of human resources and to increase socialization to taxpayers. The second priority is improve public transportation terminal facilities, the third priority is to evaluate Local Regulations Number 10 of 2010 concerning public transportation tax rates, and the fourth priority is a cooperation between other agencies.

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