Village governance in realizing smart village in Tongke-Tongke Village, Sinjai Regency

Asriadi AR¹, A. Jamaluddin¹, Jusniaty¹, and Alima Bachtiar Abdullahi²

¹High School of Social and Political Science Department of Sinjai Regency
²Pangkep State Polytechnic of Agriculture

Email: asriadi08@gmail.com

Abstract. The implementation of the principles of good governance is the benchmark of good and clean government. The principles include community participation, upheld rules of law, transparency, care and stakeholder, orientation to consensus, equality for every person, effectiveness and efficiency, accountability, and strategic vision. In the village government, various efforts are made to develop the village, including the concept of Smart Village. A Smart village is a concept to adopt components or indicators of the Smart City concept to realize better village governance for the people. The indicators of the smart village include Smart People, Smart Environment, Smart Living, Smart Mobility, Smart Economy and Smart Governance. Based on the above, a study on village governance to realize a smart village was performed. The study was performed in Tongke-tongke Village, East Sinjai Sub-district, Sinjai Regency on June-August 2019. The research method is a qualitative research method with a phenomenology research type. The researchers collect data by performing in-depth interviews with research objects or informants, as well as directly observing how the research object interpret their experience to others. The research result showed that the governance of Tongke-tongke village hasn’t applied all concepts of a smart village. The only met indicator was smart mobility. However, there were efforts to improve governance to implement the concept of smart village with the availability of fund to develop information technology and human resources, and the commitment of village officials to realize good governance.

1. Introduction

Governance is a series of activities (processes) socio-political interaction of government with the community in various fields associated with various community interests and government investment in these interests [1,2]. Good Governance is the management of solid and responsible development that is in line with the principles of democracy and an efficient market [3,4].

The principles of good governance include community participation, upholding the rule of law (court), transparency, care and stakeholders, oriented towards consensus, equality for all citizens, effectiveness and efficiency, accountability, and strategic vision [3,5].

Increasing the effectiveness of organizations in a government is something that absolutely must be done, including the village-level government. This is in line with the 3rd Nawacita, which reads to build Indonesia from the periphery by strengthening regions and villages within the framework of a unitary state. To realize this, starting in 2015, the government gradually carried out the mandate stated in Law number 6 of 2014 concerning Villages in which there was an obligation of the government to provide Village Funds [6]. The allocation of village funds is more focused on alleviating poverty and
addressing inequality between villages. The village funds allocated by the government are used to develop rural areas with the aim of realizing community independence and creating independent and sustainable villages.

The realization of a sustainable independent village can make the village more attractive to be occupied, visited, or to be targeted for investment. Therefore, efforts should be made to change the view that cities are more advanced, more sophisticated, or more prosperous when compared to villages. This assumption needs to be reversed with innovative steps, one of which is done by creating a smart village.

Smart village, or it can be called Smart Village, is a series of Universal Service Obligation (USO) Programs. This program is intended as a means of introducing the field of information and communication technology (ICT) to the community, especially to improve productivity and the economy in the regions [7,8] Smart Village is a smart village concept that adopts components or indicators from the Smart City concept but on a smaller scale (village area or village) with the aim of the realization of the implementation of better governance and service to its citizens [9].

In the Smart Village concept, the success rate of the program is measured by looking at the performance of resource management so that it becomes more efficient, sustainable and involves various elements of the community. The concept of Smart Village is needed so that villages are able to know the problems in it (sensing), understand the conditions of village problems (understanding), and can regulate (control) a variety of existing resources to be used effectively and efficiently with the aim of maximizing service to its citizens [10]. Indicators of success of smart villages include [11,12].

1.1. Smart People
Smart People (smart people: i.e. human capital that is well educated both formally and informally and manifested in creative individuals or communities).

1.2. Smart Environment
Smart Environment (smart environment: the environment that provides comfort in the present and future in other words environmental sustainability both physical and non-physical conditions).

1.3. Smart Living
Smart Living (intelligent life: i.e. refers to the quality of life and culture of the community the most influencing factors are the availability of needs, the existence of security, safety, convenience and comfort of life).

1.4. Smart Mobility
Smart Mobility (smart mobility: a system of movement that allows the fulfillment of needs with minimal movement as quickly as possible).

1.5. Smart Economy
Smart Economy (i.e. smart economy: i.e. high levels of the economy and financial well-being of people with good economic growth and high per capita income).

1.6. Smart Governance
smart governance: a government paradigm that issues policies that heed the principles of the rule of law, humanity, justice, democracy, participation, transparency, professionalism, and accountability as well as the effectiveness and efficiency of policies.

Based on this, a study was conducted on the governance of the village of Tongke-tongke in realizing a smart village.
2. Research methodology

This research was conducted in Tongke-tongke Village, East Sinjai Subdistrict, Sinjai Regency in June-August 2019. The location determination was based on the stipulation of Tongke-tongke Village as one of the Ecotourism objects in 2016. The Tongke-tongke Village Government continued to make improvements in the process of implementing government village. This is indicated by the transfer of management authority from the village government to the district government [13]. As an Ecotourism village, then the village government of Tongke-tongke should be able to provide services to its people within the frame of the smart village concept. Where the village government builds and develops villages by creating facilities for the community through the smart village program. Besides that Tongke-tongke village is also the closest village to the district capital and has more education center facilities than other regions.

The research method used is a qualitative research method, with the type of phenomenological research that is by paying attention and examining the focus of the phenomenon to be studied, which looks at various subjective aspects of the behavior of the research object. Furthermore, researchers conducted data mining by gathering documentation related to research problems, conducting in-depth interviews with objects or informants in the study, as well as making direct observations on how the research object interpreted its experiences to others. After that, analyzing the data is done by basing on the assumptions of the answers to the research questions that have been made, through the stages in the form of research objectives to be achieved. In this case the process of data analysis activities includes a) the stage of data collection, b) reducing the data to get the main themes that are considered to have relevance to the research problem, c) data assessment, which is done by categorizing primary data and secondary data with the recording system relevant, d) interpret the data, which is done by critically analyzing the data collected and finally comes to a conclusion. The next step is to formulate the results of the study so that the data obtained can be a conclusion, as an answer to the research question.

3. Results and discussion

3.1. Smart People

Smart people can be said as the main goal that must be met in realizing a smart village. One measure to look at the level of public intelligence, in general, is to look at the level of education. A person's level of education can at least illustrate a little about his level of intelligence. The education level of the Tongke-tongke village community can be seen in the table below:

Table 1. The education level of the tongke-tongke village community

| No. | Level of education                      | Male (person) | Female (person) | Percentage (%) |
|-----|-----------------------------------------|---------------|----------------|----------------|
| 1   | Aged 3-7 years                          | 92            | 82             | 5.88           |
| 2   | Ages 7 - 19 years                       | 337           | 306            | 21.74          |
| 3   | Graduated from elementary school / equivalent | 641           | 624            | 42.79          |
| 4   | Graduated from junior high school / equivalent | 179           | 198            | 12.75          |
| 5   | Graduated from high school / equivalent  | 164           | 161            | 10.99          |
| 6   | Graduated D-1 / Equal                   | 1             | 3              | 0.14           |
| 7   | Graduated D-2 / Equal                   | 4             | 2              | 0.20           |
| 8   | Graduated D-3 / Equal                   | 3             | 6              | 0.30           |
| 9   | Graduated D-14 / Equal                  | 3             | 4              | 0.24           |
| 10  | Graduated S-1 / Equal                   | 50            | 94             | 4.87           |
| 11  | Graduated from S-2 / Equal              | 1             | 2              | 0.10           |
|     | **Total**                               | **1475**      | **1482**       | **100**        |

Source: Profile of Tongke-Tongke Village, 2019
Based on table 1 above it shows that in the village of Tongke-tongke most people only have a high school level of education or the equivalent. This illustrates that there is still a lack of public awareness in pursuing higher education. This will be able to influence their ability to adapt to their environment. As for the education level of human resources, the Tongke-tongke Village apparatus can be seen in the following table:

Table 2. Education level

| No. | Educational level                  | Number of people |
|-----|-----------------------------------|------------------|
| 1   | Graduated from high school/equivalent | 5                |
| 2   | Graduated D-3 / equivalent         | 1                |
| 3   | Graduated S-1 / equivalent         | 2                |
| Total|                                   | 8                |

Source: Profile of Tongke-Tongke Village, 2019

Table 2 above also shows that 62.5% of the education level of the Tongke-tongke village apparatus was graduated from high school/equivalent. The rest for D3 is from the Islamic Religious Education program, while for S1 respectively from the Government Science S1 and S1 Sports Education. This means that the Tongke-tongke Village officials in realizing their smart village must also be able to improve their skills and intelligence, one of which is by increasing their education level. This can help the government program to open new jobs to overcome unemployment. Education will usually be able to sharpen the mindset of individuals, besides it is easy to accept more advanced information.

3.2. Smart Environment

Environmental factors are considered as factors that influence the progress of smart villages because in living the survival of rural communities, the environment must provide comfort both physically and non-physically. One indicator of the creation of a smart environment is the availability of adequate infrastructure because this will affect the performance of the surrounding community. Infrastructure development in the village of Tongke-tongke is faced with the limited ability of the Village Government to provide it. More clearly, the condition of village facilities and infrastructure can be seen in table 3, the composition of land use can be seen in Table 4 below:

Table 3. Facilities and Infrastructure

| No. | Types of Facilities and Infrastructure | Well (km or unit) | Broken (km or unit) |
|-----|----------------------------------------|-------------------|---------------------|
| 1   | Village / Urban Roads                  | 6.00              | 1.00                |
| 2   | The length of the asphalt road         | 6.00              | 1.00                |
| 3   | Long dirt road                         | 0.00              | 2.50                |
| 4   | Irrigation                             | -                 | -                   |

Source: Profile of Tongke-Tongke Village, 2019

Table 4. Composition of Land Use

| No. | Qualification          | Large          |
|-----|------------------------|----------------|
| 1   | Settlement             | 15000          |
| 2   | Office space           | 1000           |
| 2   | Rain-fed rice fields   | 2,908.33 Are   |
| 3   | Rain-fed rice fields   | 2,631.39 Are   |
4. Pond  
5. Long Coastline  
6. Mangrove Forest (Mangrove)  
7. Nipah Forest  

Source: Profile of Tongke-Tongke Village, 2019

Based on tables 3 and 4 above, if related to the results of interviews with informants on June 6, 2019 it says that:

"Some of the infrastructure issues that need attention and are a necessity for rural communities include repair of irrigation networks, construction of village roads, construction of drainage, road running and bridges".

This shows that based on the infrastructure development of the village of Tongke-tongke, it is stated that a smart environment has not yet been created. In addition, it is also supported by the cultures that exist in the village of Tongke-tongke with a lack of awareness in protecting the environment that can still provide comfort, the sustainability of resources, physical beauty and non-physical, visual or not, for the community and the public. This is because public intelligence, in general, has not yet been formed.

3.3. Smart Living

The next indicator is Smart Living, which aims to improve the quality of life of the community. Providing facilities in the form of information about health, developing a digital literacy curriculum, and building disability-friendly facilities are several ways to improve the quality of life of the community. In addition, the community must also be cultured, meaning that humans have a measurable quality of life, that is, dynamic in the sense of always trying to improve themselves.

Based on smart people and smart environments, it was concluded that the smart living village of Tongke-tongke had not yet been created. This is evidenced by the inadequate quality of life and culture of the community. Where cultural achievement in humans, directly or indirectly, is the result of education. Good quality education is a guarantee of quality culture, and or quality culture is the result of quality education.

3.4. Smart Mobility

Smart Mobility focuses on improving the quality of transportation for urban communities, how the access point to the village is easy and affordable. Besides the affordability of technology such as internet networks, computers and other electronic devices that can help access society and the government.

Smart mobility of the village of Tongke-tongke has been realized. This is evidenced by the minimum possible movement system and as fast as possible. The results of observations and interviews obtained that there is enough alternative transportation available in addition to public transportation to support the mobility of the people of Tongke-Tongke Village. The support of the village government for the existence of public transportation is very good; it is also supported by the community, as evidenced by the existence of several communities that make public transportation a source of income by becoming a public transport driver. In the health sector, the village government has prepared a personal contact number that can be contacted when there are people who need a vehicle for a family referral to the Puskesmas or Hospital.

Smart mobility includes transportation and infrastructure development. The availability of transportation facilities and infrastructure that is adequate will improve the quality of life of the community and increase the economic growth and welfare of the community. For access points to the village of Tongke-Tongke quite smoothly, all the main lines have been paved, and several other lines are in the repair phase. This shows the government's commitment to realizing a smart village.
3.5. Smart Economy

Smart Economy encourages economic development through creative industries in the digital field. By utilizing digital technology, many new business opportunities emerge and often produce effective solutions to problems that exist in the village. In essence, how do the government and the community work together to attract investors, and increase the attractiveness of the village. Finally, we will open new jobs, accelerating the smart economy includes innovation and competition. If more new innovations are developed, it will add new business opportunities and increase business market competition.

Tongke-tongke Village is a village located on the coast of the East Coast of Sinjai Regency, with a population of 3,688 people consisting of 1,712 men and 1,876 women. Tongke-tongke village has a variety of sources of income; most of the population depends on the fisheries sector. According to H. Sirajuddin, as the Village Head said that "Nearly 58% of the population depends on marine products. The catch of fish (cob, katamba, grouper, sunu) and seaweed reach 10 tons/year. Fish and seaweed production in this village has high quality and is well known in East Sinjai District in particular and Sinjai Regency in general. It is just that in the marketing process that resulted in unstable prices so that the level of community welfare cannot be supported by the catch of fish and seaweed cultivation.

Some of the people of DesaTongke-tongke have a high level of welfare, but there are still economic inequalities that are felt by people who work as farmers and for those who do not have a permanent job (only relying on sea products), they are very difficult in improving their standard of living. Based on the discussion above, it was concluded that the village of Tongke-tongke had not yet achieved a smart economy; this was evidenced by the insignificant level of community income with other economic growth. While the indicator of achieving a smart economy is if the economy develops through the creative industries, and the government and the community work together to attract investors and increase the attractiveness of villages

3.6. Smart Governance

Smart Governance is smart government governance where the government must be able to facilitate change and social development well. The government paradigm that issues policies that heed the principles of the rule of law, humanity, justice, democracy, participation, transparency, professionalism, and accountability, as well as the effectiveness and efficiency of policies, has continued to be carried out by village governments, including the Tongke-tongke Village Government. Various efforts made by the Tongke-tongke village government to achieve smart government, including the development of human resources, especially village officials.

Human resource in Tongke-tongke Village is one of the obstacles in the implementation of smart villages, and this happens because there are no village officials in Tongke-tongke who are experts in the field of technology (internet network). On the other hand, technology tools in the village of Tongke-tongke also lack, especially the internet network. There is one internet network unit in the office area, but the access range is also not yet maximal. Based on the results of an interview delivered by the village head on June 26, 2019 said that:

"In addition to human resources, we are also constrained by the network. There are still many hamlets that have not been accessed and do not yet have an internet network so that in the future that will be our business."

Based on observations, it can be concluded that in terms of internet availability, the Village of Tongke-tongke is not ready to go to the smart village. Besides that, experts and personnel who will work in government are not sufficient to support smart governance. Until now, the Tongke-tongke village government does not yet have a village website that allows village governments to share information with the public through online media. But efforts towards the gradual development of the Information and Technology network have been continued by the village government of Tongke-Tongke, as seen in the field that the Village Finance System has used a special application even though it has not been accessed online.
In general, the apparatus's desire to realize a smart village is demonstrated by efforts to improve governance towards the application of the smart village concept with the availability of funds for information technology development and human resource development, as well as the commitment of village officials to realize good governance. To realize a smart village, each indicator cannot work alone, each of these indicators has their respective roles and is related to one another.

4. Conclusion

Based on the results of the study, it can be concluded that the governance of the Village of Tongke-tongke has not applied all the concepts of a smart village, the indicators that are met are only smart mobility. However, there have been efforts to improve governance towards the application of the smart village concept with the availability of funds for the development of information technology and human resource development, as well as the commitment of village officials to realize good governance.

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