SMART VILLAGES ESTABLISHMENT FOR RURAL COMMUNITY DEVELOPMENT

Alfitri[1], Abdul Kholek[1], Randi[1], Muhammad Izzudin[1], Andi Alfatih[1], Azhar, Mohd Mahzan Awang[2], Abdul Razaq Ahmad[2], Sarah Khumairah Muchlis[2]

[1]Faculty of Social and Political Science, UNSRI, INDONESIA
[2]Faculty of Education, UKM, MALAYSIA

ABSTRACT

This research analyzed the urgency of ICT in developing smart villages in Mulya Sari Village, Banyuasin, South Sumatra, Indonesia. Smart village assessment by exploring and analyzing community's perceptions of the six smart village effects, namely smart governance, smart branding, smart economy, smart living, smart society, and smart environment. The research method used was quantitative with a questionnaire like a scaling instrument. The category used in measuring these perceptions was a score of 20 - 40 was a very unimportant answer (VU), 40 - 60 was an unimportant answer (U), 60 - 80 was an important answer (I), 80 - 100 was a very important answer (VI) while neutral/doubtful answers (N) were obtained if the score scale was 60. The important finding in this research was that each aspect of smart village assessment into an important category, namely an average score of 60-80 percent. The highest score was smart living and smart society with a score of 77, the meaning was that the community had an important concern for life and village communities. While smart governance with a score of 73, smart branding 72, smart economy 74, and smart environment with a score of 72. An important conclusion in the research was that the need for ICT in smart village development was an important element according to the community. Because currently, the development of ICT has provided many alternatives for the progress of the community in the village. The results of this research recommend that the government or the private sector needs to strengthen ICT infrastructure, strengthen community capacity in supporting villages to become smart.

***Keywords*:** rural community, information communication technology (ICT), development, smart village

INTRODUCTION

Laws of the Republic of Indonesia Number 6 of 2014 concerning Villages, is an important foothold for the village development and development program towards independence. The purpose of village planning according to Indonesian philosophy is to: a) ensure the effectiveness of the administration of the Village Government; b) accelerate the improvement of the welfare of the village community; c). accelerate the improvement of the quality of public services; d). improve the quality of village governance; e) increasing the competitiveness of villages.

In this era, the independence of the village is inseparable from the role of ICT, which is a crucial part of village development towards smart. Smart village becomes a new discourse in the practice of village development. It is inseparable from the development of ICT in the era of the industrial revolution 4.0. The progress of ICT has changed many dimensions of life in global and local communities. ITC has connected humans to optical cable networks. Technological advances have crossed the boundaries of space and time.

For decades, villages in Indonesia have always been synonymous with development in the agricultural sector, this condition occurs because Indonesia is known as an agricultural country. The development of village infrastructure is carried out to improve services for the community not only in the economic sector but in cultural and democratic development and through increased community

participation in the development process. Of course, in development today is inseparable from the role of ICT as one of the important instruments both at the central level to the lowest level that is in the villages.

Interventions of various development programs at the village level as a form of implementation of the Village Laws have adopted many virtual instruments, for example in marketing agricultural products, tourism promotion, public services, village governance, and various other sectors in the village. It is in line with the transformation of villages to smart villages. Almost all village areas are connected by telecommunications networks which are bringing a massive flow of change at the village level today. However, developments that have led to the independence of the village towards smart villages have not been realized on a large scale in Indonesia.

Therefore, what was interesting to research in this article was how the development of smart villages in Indonesia through the implementation of the Integrated and Independent Cities program since 2007. This research was conducted to measure community's perceptions in the transformation to smart villages using six main aspects, namely 1) Smart Governance, 2) Smart Branding, 3) Smart Economy, 4) Smart Life, 5) Smart Society and 6) Smart Environment. Specifically, it was conducted in the Independent Integrated City Program in Mulya Sari Village, Banyuasin District, South Sumatra Province, Indonesia.

Theoretical Framework

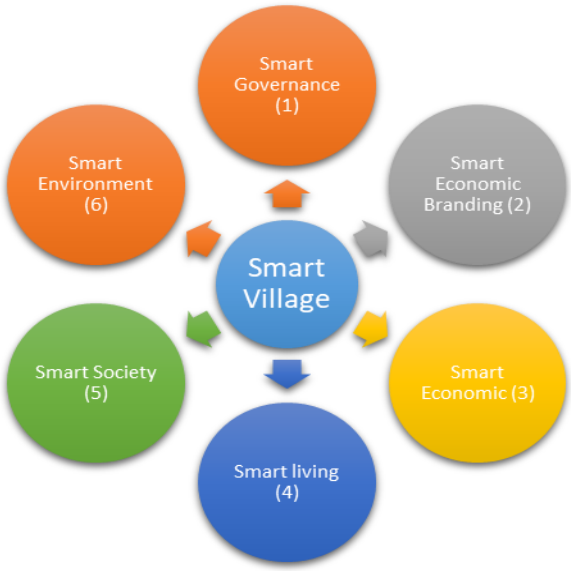
This article talks about the community's perceptions of the urgency of ICT in the development of the smart village. Perception is considered important. Perception is the response or interpretation that comes out as a result of other objects which are the result of the union of the five senses (Rabinoff, 2018). Public perception of the importance of *Internet Communication Telecommunication* (ICT) is the primary data in this article, considering that ICT-based development needs to be measured and confirmed the use of ICT through perception. ICT is no stranger to the global community. Studies on ICT have been carried out. Information and communication technology (ICT) speak Anti-fragile ICT Systems (Hole, 2016) Professionalism in the Information and Communication Technology Industry (Weckert, 2013) Virtuous IT governance: IT governors cannot be virtuous (Lucas, 2013). ICT helps in fulfilling potential in improving all aspects of life in modern society and ICT in all fields of work (Weckert, 2013).

Modern society cannot work without information and communication technology systems (ICT). The beginning of the ICT system entering the government was the electronic government system (E-Government), such as e-payment infrastructure, and cellular telephone networks, but it was considered a failure. Although it failed, users could still access alternative systems based on the latest technology. E-Government services are introduced on the web to improve services to citizens and to assist human resources in overcoming the increasing administrative service requirements, so that there will be no government employees capable of handling telephone services, paper use services, or face-to-face services, so E-Government Services that remain useful against unwanted problems, so that services remain available to citizens all the time (Hole, 2016) in the ICT E-Government system. E-Government becomes the main thing in service in Indonesia both at the village, sub-district, district, provincial and central levels, given that Indonesia's geography is a problem in itself. So that the concept of a smart city and the smart village becomes the rule model for ICT-based service development at all levels. The most representative features of Smart City are the integrated ICT structure, optimizing time, transparency, saving energy, reducing emissions, and orienting towards a green environment (Veronika Zavratnik, 2018).

Smart Village Review by (Veronika Zavratnik, 2018) (Rutuja Somwanshi, 2016) (ENRD, 2018). Smart villages are rural areas and communities which build on their existing strengths and assets, as well as new opportunities to develop added value and where traditional and new networks, are enhanced using digital communications technologies, innovations and the better use of knowledge for the benefit of inhabitants (ENRD, 2018). Smart Village enables its inhabitants to utilize contemporary technology and infrastructure that are still being developed in sustainable development to offer opportunities efficiently, save energy, and local economic problems (Veronika Zavratnik, 2018). Smart village is nothing but to show the existence of technology and a globalized and sustainable village.

According to CSSN the concept of Smart City and the smart village is ICT-based by looking at 6 aspects, namely: 1) Smart Government, 2) Smart Branding, 3) Smart Economy, 4) Smart Living, 5) Smart Society and 6) Smart Environment. This aspect becomes crucial in the assessment of Smart Village in Mulya Sari Village, Tanjung Lago District, Banyuasin Regency. Here are six aspects of the smart village:

Figure 1: Smart Village Aspects



Source: Citiasia Center of Smart Nation (CCSN)

As one of the villages included in the integrated independent city (KTM) Mulya Sari Village and other villages, it is assumed to have a moderately good infrastructure and use of ICT, the following concepts are related to six aspects:

1) **Smart Government:** Smart Governance is crucial to carry out all elements in the village, in this case concerning public policy, public services, and bureaucratic governance.
2) ***Smart Branding*:** Smart branding is necessary for a village because it is related to the promotion of the potential of the village both indigenous, natural and cultural to tourists and business people, three things that investigated namely tourism, business and regional social capital that creates the image of the region.
3) ***Smart Economy***: A smart economy prioritizes infrastructure that provides prosperity to financial transactions to the public that is easy and convenient.
4) ***Smart Living*:** Smart living is a harmonious smart village community condition that equipped with recreational facilities for the local community and adequate health services.
5) ***Smart Society*:** Smart Society is an individual or group community given access to education supported by IT facilities, and the most important thing is that the local government can guarantee life safety, property and disaster mitigation for the community.
6) ***Smart Environment*:** Smart Environmental management, a smart environment capable of carrying out village development by paying attention to physical development with an environment for sustainable citizens. Technology is the basis for increasing sustainability.

Research Methodology

The research located in village of Mulya Sari, Tanjung Lago District, Banyuasin Regency. The sample in this research amounted to 120 respondents with a purposive random sampling method with criteria 1) the community living in Mulya Sari Village, 2) working using Internet Communication Telecommunication (ICT).

The data processing method used in this research was the Likert method. The Likert method is a method of scaling out the statement of attitudes by using the distribution of responses as the basis for determining the scale and not using an assessment group. On a Likert scale, quantification done by calculating the response of disapproval or disinterest.

The measurement scale is known as the Ordinal Likert scale, the Definition of a Likert Scale is a scale where the respondent states the importance of various statements about objects, community or events (Kuncoro, 2003).

Table 1: Likert Scale Instruments

Statement	Score
Very Unimportant (VU)	1
Unimportant (U)	2
Neutral/doubtful (N)	3
Important (I)	4
Very Important (VI)	5

Source: Kuncoro, 2003

Data analysis was performed by processing qualitative primary data into quantitative using scoring and rating measurement scales. Scoring analysis technique is the provision of scores to respondents' answers to obtain the necessary quantitative data. Whereas for rating scale is a list that presents several properties or attitudes as items.

Data in the form of Likert scale scores to be entered must start from a score of 0. If the perception score starts at 1, then conversion must be done first. After that, the data inputted to the available table. The maximum amount of data is 5 categories, 50 statement items, and 89 respondents. Meanwhile, the minimum amount of data is not specified. The following data processing is in the next sheet in the Windows Excel program.

Table 2. The score categories based on perception include five answers, namely:

Perception	Respondent (r)	Score (s)	Range of Scores (r x s)	Scale of Scores (rs / maxscore X 100%)
Very Important (VI)	26	5	130	100
Important (I)	26	4	104	80
Neutral/doubtful (N)	26	3	78	60
Unimportant (U)	26	2	52	40
Very Unimportant (VU)	26	1	26	20

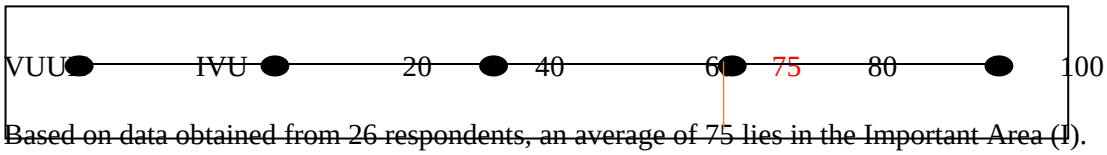
The most important score scale between 20 – 40 is a very unimportant answer (VU), 40 – 60 is an unimportant answer (U), 60 – 80 is an important answer (I), 80 – 100 is a very important answer (VI). Meanwhile, a neutral/doubtful answer (N) obtained if the score scale is 60.The interval data analyzed by calculating the average answer based on the score of each respondent's answer. Based on a predetermined score can be calculated, for example:

- Total score for 20 people who answered VI = 20 x 5 = 100
- Total score for 20 people who answered I = 20 x 4 = 80
- Total score for 9 people who answered N = 9 x 3 = 24
- Total score for 20 people who answered U = 20 x 2 = 40
- Total score for 20 people who answered VU = 20 x 1 = 20

The total score is **264**

The ideal score (criteria) for all items = 5 x 26 = 130 (if all of them answered SP). Based on the calculation of the total score obtained from the study of 98, while the scale of the score calculated from the data, the importance of aspects of the smart village are:

$$\frac{98 \text{ x } 100\%}{130} = 75{,}38 = 75$$



Based on data obtained from 26 respondents, an average of 75 lies in the Important Area (I).

Findings and Discussions

a. Description of Research Areas

Mulya Sari village was one of the transmigration areas that was established in the 1980s in Banyuasin Regency. Before the decentralization era, it was a part of Musi Banyuasin Regency. Historically, most of the population came from East Java, Central Java, West Java, Yogyakarta, and some areas of Bali. Since the beginning of its development as a transmigration area, Mulya Sari village was prepared as the agricultural area for food commodities, such as rice, nuts, and vegetables.

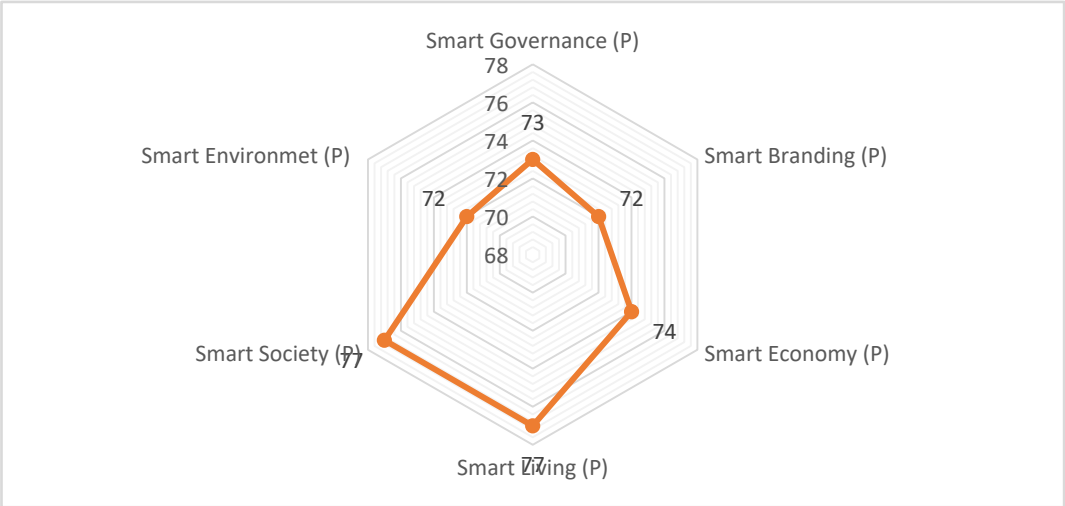
At present, Mulya Sari is an icon of transmigration development progress in Banyuasin Regency. Since it was declared and established as one of the areas of Telang Integrated and Independent City (IIC} in 2007, it continues to develop through the development of infrastructure, human resource capability through education, health sector, and information technology among the community.

The improvement of the economic sector has already seen. This village, even, has become one of the biggest suppliers of corn and paddy for Banyuasin Regency. The distribution network of agriculture yield is not only available at district or regency level but also a cross-province level. This condition plays a role in community development towards more proper and equal life standard.

b. Smart Village Implementation

Assessment of Smart Village in Mulya Sari Village, Tanjung Lago District, Banyuasin Regency, South Sumatra Province, Indonesia was by looking at 6 aspects, namely: 1) Smart Government, 2) Smart Branding, 3) Smart Economy, 4) Smart Living, 5) Smart Society, and 6) Smart Environment.

Diagram 1: Implementation of six aspects of smart village assessment in Mulya Sari



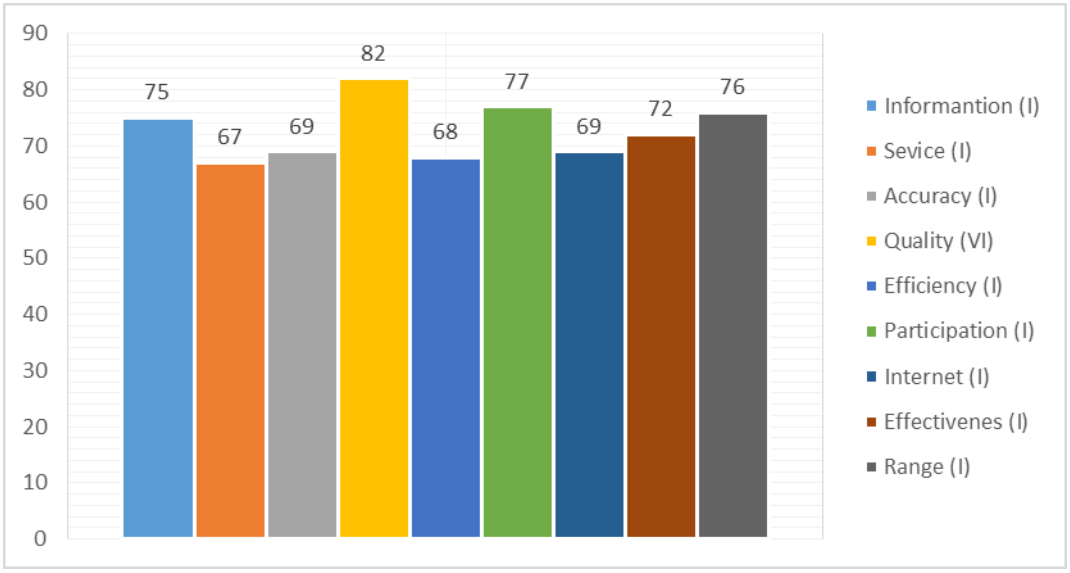
Source: Analysis of primary data, 2019.

Based on Diagram 1, the aspects that have the highest score are smart living and smart society with each score of 77 with important categories for the community. The lowest aspect is the assessment of smart branding and smart environment with a score of 72 each, also included in the important category. The smart governance rating has a score of 73. The smart economy has a score of 74. The percentage of assessment in the six aspects of the smart village is in the important category. It means that the community considers that smart villages are the relevant aspect of development and expansion in all sectors at the village level.

c. Smart Governance

Smart Governance interpreted as smart village governance where its components regularly highlight the governance of local government as an institution that controls the joints of village life. Therefore, Smart Governance in the Smart Village dimension is a picture of smart governance, which is governance that can change traditional patterns in the bureaucracy so produce business processes that are faster, more effective, efficient, and communicative and always make improvements. The goal of Smart Governance is to create effective, efficient, communicative local governance and governance. Besides, continue to improve the performance of the bureaucracy through innovation and adoption of integrated technology.Smart Governance must be implemented into three elements, namely service, bureaucracy, and policy.

Diagram 2: Diagram of community perception of Mulya Sari Village on the importance of Smart Governance.



Source: Primary Data Analysis, 2019

Based on Diagram 2, the assessment of the importance of smart governance is divided into nine assessment variables. The highest rating is service quality with a score of 82 or very important, thus indicating that the community requires quality public services in the region. Sequentially the perception scores of the community are first; information on ICT-based services with a score of 75 in the important category; second, easy access to services with a score of 67 in the important category; third, service accuracy with a score of 69 in the important category; fourth with the highest rating or very important with a score of 82; fifth, the use of ICT in the framework of efficiency of public services with a score of 68 in the important category; sixth, community participation is also considered important with a score of 77; seventh, internet-based services are also important with a score of 69; eighth, the effectiveness of internet-based services is considered capable of overcoming service problems with a score of 72 or important; and finally the reach of ITC for all groups with a score of 76 is also included in the important category.

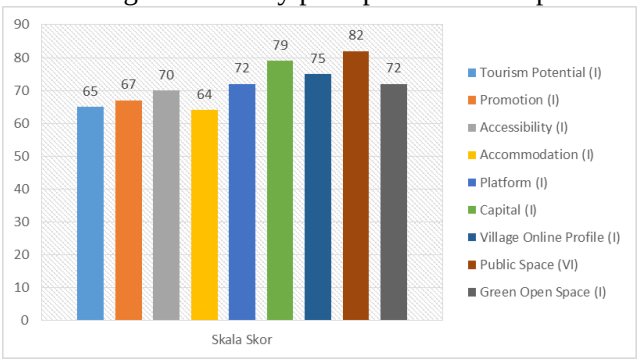
People's perceptions of smart governance are important generally, namely 73. The community believes it is critical to improving services through smart governance in Mulya Sari Village.

d. Smart Branding

Smart Branding is an innovation in marketing the region so that it can increase regional competitiveness by developing three elements, namely tourism, business, and the face of the village. Smart Branding is one of the dimensions in Smart Village because in the information age as it is today, a village no longer has to be able to meet its needs by only utilizing its local potential, but it must also be able to attract community participation, both from within and outside the region, as well as business people and investors to participate in encouraging the acceleration of village development.

This village's branding aims to increase the regional brand value that will encourage economic activity, the development of local social and cultural life which will lead to an increase in people's welfare. The goal of smart branding is to increase village competitiveness by structuring the village's face, and marketing the village's potential both locally, nationally, and internationally.

Diagram 3: Mulya Sari Village community perception of the importance of Smart Branding



Source: Analysis of primary data, 2019.

Based on Diagram 3, the assessment of the importance of smart branding divided into nine assessment variables. The highest rating is the availability of public space. The score is 82 or very important, so it indicates that the community needs public space. Sequentially the score of people's perception of smart branding is 1) the existence of tourism potential with a score of 65 in the important category; 2) travel promotion with an assessment score of 67 in the important category; 3) accessibility with a score of 70 is in the important category; 4) the accommodation variable is also considered important for the community with an assessment score of 64; 5) Platform for technicians at the village level is also considered important by the community with an assessment score of 72; 6) easy access to capital is also considered important by the public with a score of 79; 7) the need for village spatial planning online is also considered important by the community with a score of 75; 8) space with a score of 82 or very important according to the community and the last variable; and 9) green open space/ green areas is also considered important for the community.

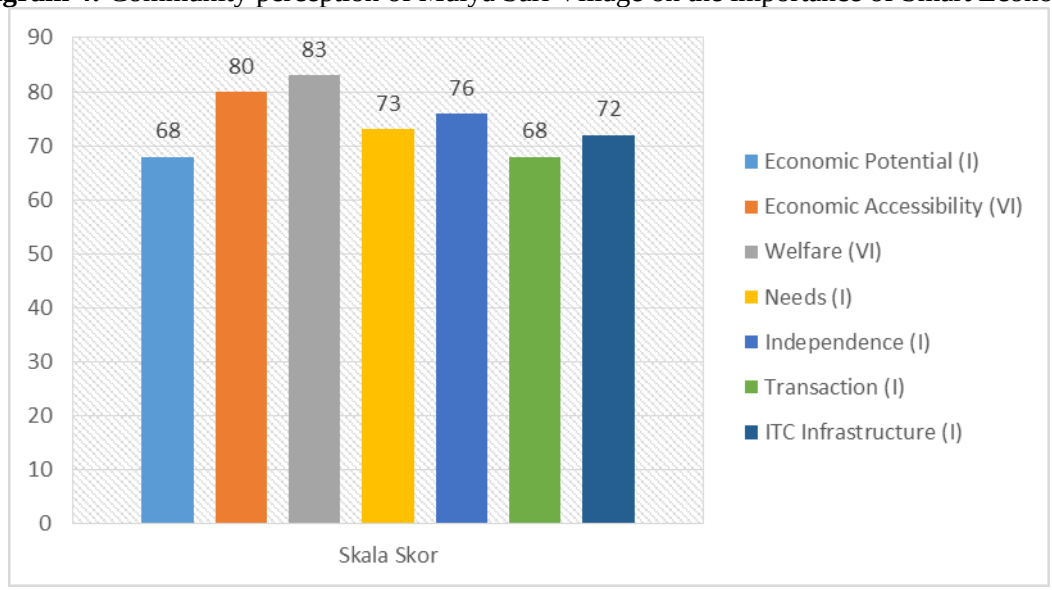
People's perceptions of smart branding are important generally, with an average score of 72. The community feels it is important to have smart branding to promote villages to other regions both at the local and global level. Of course, ICT infrastructure interventions in the community need to support this.

e. Smart Economy

The third dimension in Smart Village is a smart economy. The smart economy in the Smart Village is intended to create an economic ecosystem in the village that can meet the challenges in the information age that is disruptive and requires a rapid level of adaptation as it is today.

The goal of the smart economy dimension in Smart Village is to create ecosystems that support community economic activities that aligned with the leading economic sectors of the village that are adaptive to changes occurring in the current information era and increase the financial literacy of the community through various programs including realizing less-cash society. The realization of these targets is by developing three elements in the smart economy, namely the home industry ecosystem, improving people's welfare, and the financial transaction ecosystem.

Diagram 4: Community perception of Mulya Sari Village on the importance of Smart Economy.



Source: Primary Data Analysis, 2019

Based on Diagram 4, the assessment of the importance of the smart economy divided into seven assessment variables. The interesting thing from this finding is the difference between the two variables with the highest rating category, namely economic accessibility with a score of 80 or considered very important and the variable of public welfare with a score of 83 or very important. It happens because between access and welfare as an important unit for the community, with access would certainly provide a level of welfare for the community.

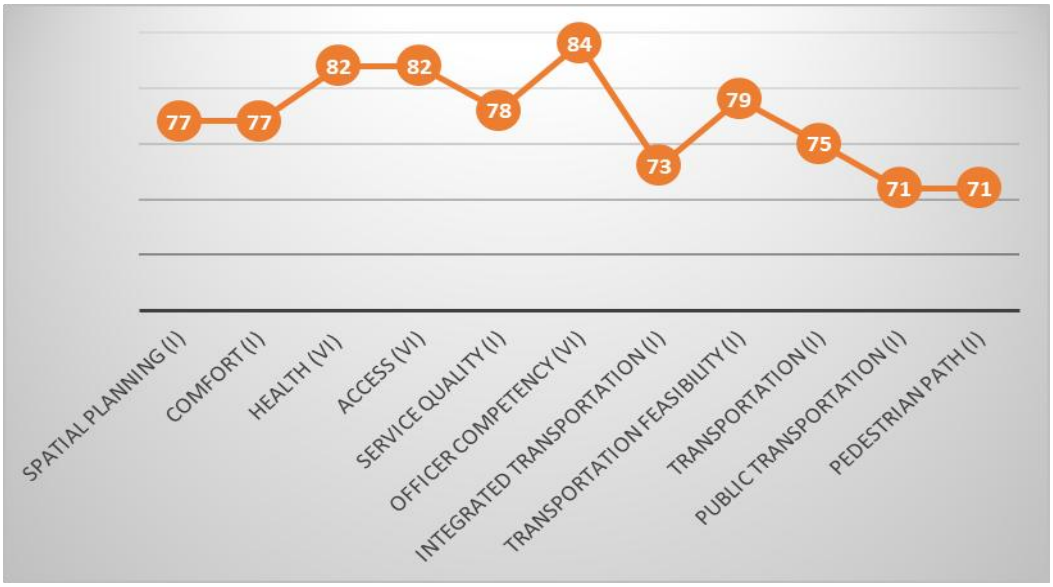
The evaluation of other variables, namely 1) the economic potential of the community with a score of 68 in the important category; 2) the fulfillment of the assessment score needs 73 in the important category; 3) independence is also considered important with a score of 76; 4) financial transactions are also considered important with an assessment score of 68; and the last variable 5) digital financial infrastructure is also considered important with a score of 72.

People's perceptions of the smart economy are important generally, with an average score of 74. The community feels it is critical to have a smart economy to support local economic development at the village level through various agricultural programs, MSME (Micro, Small, and Medium Enterprises) development, and service sector with smart. Market availability, banking service infrastructure, MSME production houses, cooperatives, other ICT infrastructure are one of the important supporting factors for the smart economy in the village.

f. Smart Living

Smart living becomes one of the dimensions in Smart Village to ensure the feasibility of the standard of living of the people within it. The feasibility of this standard of living assessed from three elements, namely the feasibility of living patterns, the feasibility of health quality, and the feasibility of transportation modes to support the mobility of people and goods in a Smart Village.

Diagram 5: Community perception of Mulya Sari Village about the importance of Smart Living



Source: Primary Data Analysis, 2019

Based on Diagram 5, people's perception of the importance of smart living includes three main elements. First is the feasibility of a lifestyle, including harmonization of spatial planning with an evaluation of 77 (important). Appropriate spatial planning and can be used by all people is spatial matters that are important. These conditions cause comfort and satisfaction with village spatial planning (green open spaces and public facilities such as mosques and sports buildings) to be important in supporting smart living. Spatial and comfort become one of the facilities that must fulfill in a smart village. Comfort is quite large at level 77 (important).

Second is the quality of health that based on data obtained in the field which used as a graph that the health quality gets the highest score of 82 (very important). Health is a major factor in all community activities because this level of health can move the community to keep working and carry out their activities. The ease and speed to get health services (health centers, hospitals, and other health facilities) are also important that based on data in the field, which is very important with a score of 82. However, the highest score is the comfort level of health care facilities, which is 78. However, the highest score is the importance of the competency of health workers in the village desired by the community, which is 84 or very important.

The third is the feasibility of the mode of transportation, which is also an important aspect to be fulfilled in DesaMulya Sari. Integrated village public transportation has a score of 73 (important). It is the access road provided by the village government, which is the benchmark for the community. Then transportation can enter the village and the production road to be able to carry out the threat of farmers' crops. The convenience and feasibility of public transportation facilities have a score of 79 (important). The village government only assists agricultural facilities, but for transportation will still be returned to the agricultural owner that can be done with wages or using private vehicles for shipping. Because the roads in Mulya Sari Village are quite good, integrating transport of village produce has a score of 75 (important). Mulya Sari Village also has a main road or the main road that connected to the city of Palembang, so commonly the products of agriculture, plantation, and fisheries are marketed. Easy access to public transportation is also important in Mulya Sari Village, where the score is 71 (important). Mulya Sari Village is quite large, so public transportation is important. The next eligibility is the availability of pedestrian paths, which get a score of 71 (important). Because in the village to access all services must require pedestrian paths, so it is important to create a healthy lifestyle and order on the streets.

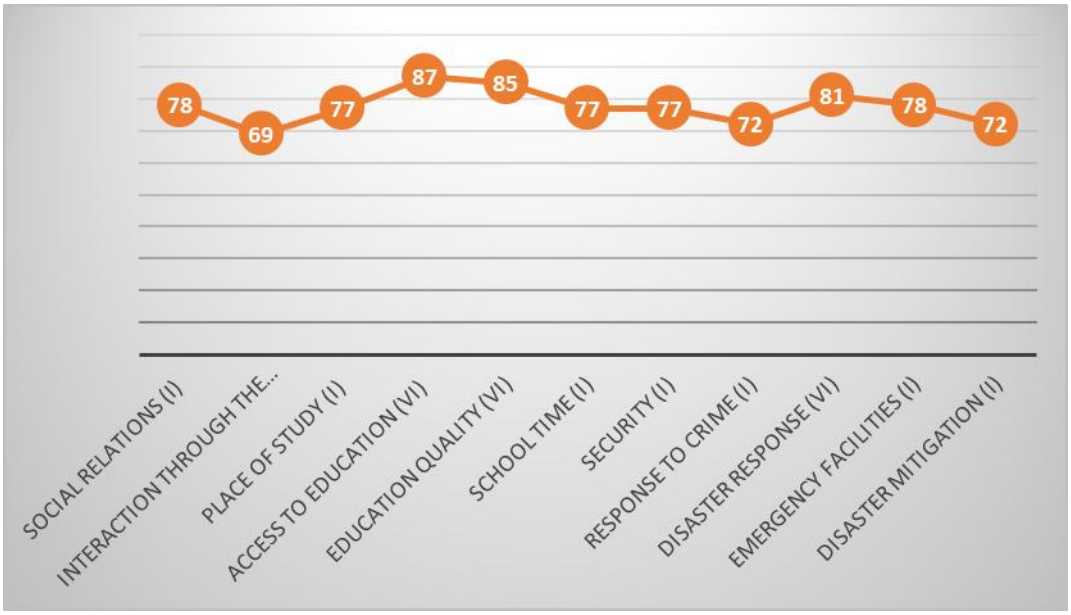
The three aspects of smart living are important for the community because based on the graph, the average of the three aspects is 77 (important). With these averages, Smart Living in Mulya Sari village becomes relevant to do. Every aspect must fulfill, because the three aspects, namely the Lifestyle Feasibility, Health Quality Feasibility, and Transportation Mode Feasibility become the viability in smart

living. Smart living is basically when the community can create a healthy life, integrated, and a good lifestyle.

g. Smart Society

Smart society, as part of Smart Village, is a dimension that talks a lot about humans as the main element of a city. In a Smart Village, the interaction between humans has moved towards a socio-technical ecosystem where the physical and virtual dimensions of villagers' lives are intensively intertwined. Interaction between citizens is increasingly strong and without a barrier to technology mediation. The goal of the smart society realized by developing three elements, namely: 1) community, 2) learning ecosystem, and 3) security system. The findings in the field in graphical form will be displayed below.

Diagram 6: Community perception of Mulya Sari Village on the importance of smart society



Source: Primary Data Analysis, 2019

Based on Diagram 6, there are three critical aspects of smart society. First is the community of citizens (Community) which was built based on regional and regional similarity as a form of transmigration community. Social relations between communities are considered important with a score of 78. Interaction is carried out to create community harmony. Communities must also be able to report on village conditions or provide input to villages (reporting via the internet and directly) to create responsive services because ICT is important in Smart Village. The ICT element is crucial in e-government, but this score is quite small, which obtained at 69 with an important category.

Second is the learning ecosystem (Learning), which is the process of getting educational services and the quality of education. This learning ecosystem is essential in improving human resources, which score is 77. The ease of obtaining educational services (schools, courses, etc.) in Mulya Sari Village is very significant, and the score is 87. The quality of education services in Mulya Sari Village is very important, with a score of 85. The quality of education services at Mulya Sari Village is very important, with a score of 85. It is proven by the existence of 2 junior high schools, 2 senior high schools, and one *pesantren* (school for children and young people to study the Koran) in Mulya Sari Village. It shows that the Mulya Sari village government concerned with education and the quality of education in the village. Besides, what is also important is the travel time to school. It is needed to get a good and quality education and reachable by all communities in the village. The education quality score in Mulya Sari Village is 77 (important).

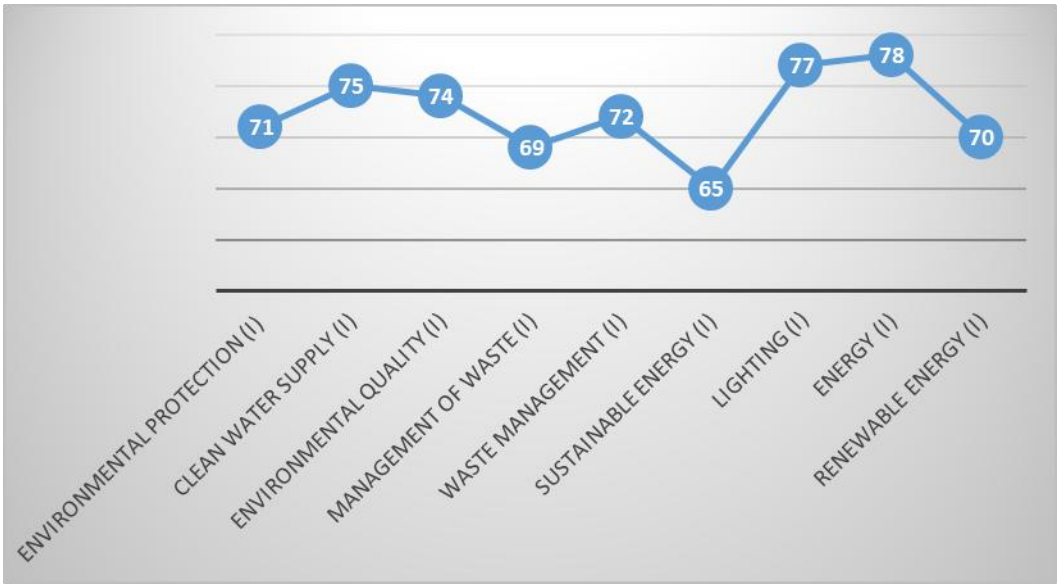
The third is the security system (security) which is also crucial to support smart society. It can be proven by the scores obtained from the field and made in graphical form, which is 77 (important). Security in Mulya Sari Village is quite safe, rarely theft and violence. It is the impact of a good community

economy. The speed of response time to crime is also necessary, but the data obtained is not too large because security in Mulia village is good enough. The score from the data obtained is 72 (important), but also considered important by the community even though they are smart. The speed of response time to accidents or disasters is relevant to the community. Mulya Sari Village has very good health services, such as ambulances in the event of a disaster and emergency patient management. The score obtained is 81 (very important). Speed in this absorption is necessary and very important to do in Smart Village. It also has adequate facilities and infrastructure for security and disasters (ambulances, fire engines, etc.), the score obtained is 78 (important). They are important in the rapid improvement of services in the health sector because considered important for every village in Indonesia. Mulya Sari Village is located on a plateau and far from a mountain so that earthquakes and floods are rare. However, when there is a forest fire, it will cause unfavorable weather due to residual smoke from combustion. Post-disaster management has a score of 72 (important).

h. Smart Environment

The sixth dimension of a Smart Village is smart environmental management, what is meant by smart is the attention to the environment in village development as much as the attention given to the construction of physical infrastructure and the construction of facilities and infrastructure for citizens. The goal of the smart environment is to realize good, responsible, and sustainable environmental governance. The graph of field findings related to community perceptions of Mulya Sari village shown in Diagram 7.

Diagram 7: Community perception of Mulya Sari Village on the importance of smart society



Source: Primary Data Analysis, 2019

Based on Diagram 7, the smart environment component consists of three elements. First is environmental governance. It is relevant in the aspect of a smart environment because it shows the sustainability of ecosystems and natural resources in the village. Environmental protection is a critical concern in Mulya Sari Village, namely the use of environmentally friendly energy. The score from this assessment is 71 (important) and quite small. It is because basically, the handling of the environment in Mulya Sari Village is not good enough because waste management is not yet fused and integrated. Water is the most crucial element in a village or place. Mulya Sari Village has easy access for the community to get clean water supply (PDAM, well water) and has a score of 75 (important). The existence of clean water sources makes the life process in Mulya Sari Village better. This clean water can be used both in agriculture and consumption. The quality of the environment (water, air, and land) in Mulya Sari Village classified as important with a score of 74. This value indicates that a smart village must have these three components. However, what the writer said at the beginning is that the management of waste using technology is still not integrated and fused, so the value obtained is not too large, 69 (important) where

this condition is not applicable. But in the smart village, it must be done in the community. They must understand how to manage waste properly and do the 3R.

Second is a responsibility which means that every community must be responsible for the environment that has been created, such as water sources, air, and agriculture. It is because every human activity will create waste or residue from activities. However, sometimes people are not aware of this, so they are less responsible for waste such as garbage left overconsumption. Smart village should have initiatives related to waste management, namely waste banks, waste segregation, and 3R. However, the only thing done is burning waste. The value obtained from the field and illustrated in graphical form is 72 (important).

The third is sustainable because the sustainable management of the environment in the village is very relevant for environmental sustainability in the future. Energy management in Mulya Sari Village is quite good and confirmed by a moderately small score of 65 (important). The availability of electricity services in Mulya Sari Village is also good, namely the use of solar light sources as environmentally friendly energy by using solar panels. The score obtained is 77 (important). Utilization of solar light sources is crucial to do in smart villages because it is sustainable and easy to do. Energy adequacy (gas and fuel) in Mulya Sari Village scores 78 (important). Because it only uses solar panels, renewable energy programs (BBG, biogas, solar panels) get a score of 70 (important). However, there should be an increase in the use of solar panels.

Environmental Governance, Responsibility, and Sustainability are a crucial aspect of a smart village. It is because these three aspects are related to the survival of the community. Based on the data above, the average smart environment is 72 (important). Data shows that sustainable environmental management in Mulya Sari Village is important.

Conclusion

The conclusion in this study is from the assessment of aspects of the smart village community that provides a critical assessment of the six aspects in the smart village, namely smart governance, smart branding, smart economy, smart living, smart society, and smart environment. The assessment results show that smart living and smart society have the highest scores with 73 scores each. It means that people need ICT support in building community life systems both individually and within the reach of the community. Smart governance has a score of 73, smart branding 72, smart economy 74, and smart environment 72. Based on these findings, an important recommendation in this research is policy support in the implementation of ICT in various aspects of village development towards smart.

Acknowledgment

This paper is based on the presentation at The 2nd International Conference on Sustainable Development and Multi Ethnic Society (ICOSH2) 2019 and it has been reconstructed from the comments and suggestions by the experts at the conference. Appreciation to the funders: GG-2018-013, GG-2019-024 and the Indonesia government.

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