Conference Paper

Enhancing Society Welfare Through Smart City Improvement by the Government in Kediri

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Abstract

The era of the fourth industrial revolution has caused many changes in every aspect of human life. The rapid development of technology has brought many advances affecting the socio-economic aspects of the lives of people in urban areas. The impact is different in people who are adapted compared with people who cannot adjust. Therefore, the government must interfere to accommodate these different conditions to reduce socio-economic inequalities for the future. The government also plays a role in efforts to improve welfare through the Smart City program, which involves all components of society. This program involves planning, developing and implementing technology in an urban area, which creates complex and synchronized systems of interactions. The purpose of this study was to determine the strategic role of Smart City in improving people's welfare. Kediri is one of the regions in Indonesia that has implemented a Smart City program and is continuously improving its implementation. Descriptive qualitative methods were used with a phenomenological approach. Data were collected through observations and literacy studies, to obtain a reflection of the implementation of Smart City in Kediri. The results described the implementation of the Smart City program, and showed that the quality of government services relating to the welfare of the community has improved, in terms of the economy, education, health and public facilities. The level of community participation in supporting regional activities has also increased due to the support of information and communication technology.

Keywords: Regional Economy, Smart City Program, Society Welfare, ICT

1. Introduction

The industrial revolution era 4.0 made changes in all fields including economy, socio-culture, and politics. The era of the industrial revolution 4.0 has started to use technology in all aspects of life. In this era, people should continue to be able to integrate themselves with increasingly sophisticated technology. Not only residents, the government is also

trying to improve its services in the regions to make it easier for people to access their daily needs.

In the demands of the era, the role of government is needed to increase the superiority of each region. In order to keep pace with the times, a smart city is really needed in a city or region. This is because the city is the center of human life in an area or area where all available systems and services are centralized in it (Pratama, 2014: 95). So that with the existence of a smart city, it is not only a smart government system in managing the resources available in the city but also humans themselves.

The concept of a digitally integrated city, which is commonly called a *smart city*, promises to continue to revolutionize conditions in the regions. Like the smart city in Malang City, it has been successfully implemented by the Regional Government with the development of several programs such as the launching of 65 hot spots, training for National Education and Technology Guidance and Electronic Mail by the Education Office, the Malang Go Open Source movement, Malang Cyberpark in the Kota square. Malang and the application of E-Government in improving public services (Purnomowati and Ismini, 2014: 65). In The other hand, there is the smart city concept carried out by the city of Bandung under the name Bandung Smart City 1.0 and the City of Surabaya with the theme e-Government. There are four basic frameworks carried out by the Bandung City Government in realizing a smart city, namely good public services, improving apparatus performance, building citizen interaction with local governments and open data access to the public. Meanwhile, in Surabaya e-Government consists of "Regional Development Management" and a system for "Community Services". Apart from receiving many awards, the two cities have been used as role models for other cities in Indonesia (Research and Development Agency of the Ministry of Home Affairs, 2017).

Broadly speaking, there are 6 complementary elements in a smart city, namely smart governance, smart branding, smart economy, smart living, smart society, smart environment. In Indonesia, the smart city movement is called "Movement Towards 100 Smart Cities". On December 11, 2017 in Jakarta, Vice President (Wapres) Jusuf Kalla gave awards to 15 cities in Indonesia that are included in the main category of Smart City Rating (Smart City). There are 3 categories that are included in the award, namely the big cities won by Surabaya, Bandung, Semarang, Bekasi, South Tangerang; Small cities are achieved by Magelang, Sawahlunto, Bontang, Tual, and Bukittinggi; Cities being won are Denpasar, Binjai, Manado, Yogyakarta, Kediri. In Kediri, the development of smart city is still at level 3. Achieving this level of smart city is not easy. Many regulations have been set by the government to encourage the development of smart cities. In the

development of smart ciy it is included in the Regional Medium-Term Development Plan (RPJMD) for 2020-2024.

2. Literature Review

The concept of smart city emerges as a demand for building a city identity that is livable, safe, comfortable, competitive, and based on technology and IT. According to Cohen (2012) smart city is a broad, integrated approach in increasing the operating efficiency of a city, improving the quality of life for its residents, and growing the regional economy. Based on the explanations from Conoras and Hikmawati (2018), the aim of implementing a smart city is to be able to form and implement a city that is safe, comfortable, controlled and facilitates access for its citizens and strengthens the competitiveness of the city in terms of economy, social and technology. So it can be explained that the goal of the smart city implementation strategy is to support the city in its social (security), economic (competitiveness), technology and environmental (comfort) dimensions.

Carragliur et al (Nuzir and Saifuddin, 2015) state that cities will be smart if investments in human resources, social capital and infrastructure for traditional and modern communication systems can increase sustainable economic growth and quality life with wise management of natural resources, through participatory governance.

3. Method

This research is considered as descriptive qualitative research with phenomenology approach, which will evaluate the implementation of development programs. Evaluation in qualitative research defines "a process of determining whether a social intervention has produced the intended result". This research identifies and evaluates a strategy to increase the smart city level top down in Kediri City. So that this research was conducted by combining descriptive - evaluative and qualitative phenomenology approaches. The scope of this activity is the identification as well as the development of a top-down smart city level improvement strategy in Kediri. In descriptive research, the process of analyzing and interpreting data is not only carried out at the end of data collection, but simultaneously is also carried out when data collection in the field takes place so that qualitative research is often known as a cycle. The qualitative method is a research procedure that produces descriptive data in the form of written and spoken words from the people and actors being observed.

The data were collected by means of in-depth interviews, observation, and document review. In data management, reflection methods are used such as: (a) sampling, (b) interpretation, (c) assessment, (d) description, (e) understanding, and (f) analysis. While the analysis stages are: (a) identifying the characteristics and size of the increase in the smart city level in Kediri City, (b) identifying the elements of the smart city in Kediri City, (c) analyzing the top down level smart city development strategy in Kediri City.

4. Results and Discussion

Overview of Smart City in Kediri City

In the city of Kediri, it implements a top down smart city development. Regional government that provides policies for running smart cities. The city development towards a smart city was also supported by the Mayor of Kediri by issuing the program in the 2020-2024 National Medium Term Development Plan (*RPJMD*). Increasing the smart city level is also the promise of the Mayor of Kediri when in the regional development planning process.

The condition of the smart city in Kediri City is still at level 3, where there is open data and open information. 3G / 4G networks are available throughout the city of Kediri with very good access coverage. Almost all services can be implemented online so that people have started to become well aware of technology. The Kediri City Government continues to increase the smart city level with *Bimtek* (Technology Guidance) with the central government, performance evaluation, to outreach to the people of Kediri City. This has received a positive response from the community.

There are 6 types of smart city parts in Kediri, namely:

4.1. Smart Governance

Smart governance in Kediri is still making continuous improvements by fostering quality in integrating technology. Smart governance in Kediri City will move towards 3 targets as the main founding indicators: (a) good governance, (b) regional financial independence, (c) good public services by the community, (c) implementation of e-Governance

4.2. Smart Branding

The main target to make smart branding in Kediri City is to increase tourist attraction. There are still problems in Kediri, such as the need to optimize the integration of cultural

development with tourism development so that the influence of foreign cultures on local culture is still strong. In addition, related to spatial planning to create superior smart branding, Kediri City *RTRW* (City Landscape Plan) has entered a revised stage of changes adjusted to the existing conditions of changes in the last 8 years. The objectives and spatial planning policies contained in the Revised *RTRW* for the region are to realize Kediri City as a center for education, industry, trade-services and tourism on a regional scale that is comfortable and sustainable.

4.3. Smart Economy

The economic growth rate of Kediri City in 2018 was 5.42% higher than the economic growth in 2017. In terms of investment conditions in Kediri City have fluctuated. The year 2018 saw an increase in investment with a value of 717.48 billion Rupiah. The existence of a fluctuating economic condition in Kediri, poverty also fluctuates. Although the trend of the percentage of residents of Kediri City living below the poverty line fluctuated during 2014-2017, in 2018 it decreased by 0.81%. The smart economy in Kediri City will move towards 3 targets as the main founding indicators, namely increasing regional superior products, increasing the amount of investment, and decreasing poverty levels.

4.4. Smart Living

In this smart living, the main components are about city dwelling, education quality, and health quality in the people of Kediri City. The coverage of livable houses in Kediri City in 2018 was 93.42%, still not reaching the 2014-2019 RPJMD targets of 98%. As for the quality of education and health in Kediri City, it needs to be improved, especially in the quality of services, Human Resources (HR) and the available infrastructure.

4.5. Smart Society

In Kediri City, there are still many criminal acts that disturb the peace and comfort of the community. In this case there is a condition that has not been optimal in reducing the rate of crime and other violations of the law, so that the Regional Resilience Index (IKD) is still low in Kediri City. The target of increasing public order and peace in Kediri City in 2019 still reaches 95% and will reach the target of 98% by 2022.

4.6. Smart Environment

In this smart government, there are problems with the environmental scope in the City of Kediri such as: (a) limited urban landfill land, (b) the need to increase the area of public green open space in Kediri City, (c) the low environmental quality index (IKLH), (d) there is still a lack of public awareness and business / industrial actors in wastewater management, and (e) the development of IPAL (sewerage system services) has not been optimal.

Various problems in the environmental scope in Kediri City, the government has several goals to develop on the smart environment side. The targets that must be applied to the smart environment in Kediri City are to improve the quality of the environment and the area of Green Open Space (RTH) with several strategies, namely controlling pollution and environmental damage, rehabilitation and management of protected areas and RTH, as well as improving water resources infrastructure.

Challenges of Smart City Development in Kediri City

The main challenge in making Kediri a smart city is in terms of Human Resources (HR). On the quality side, existing Human Resources (HR) are already good, but on the quantity side, Human Resources (HR) are not sufficient for the development process of a smart city. Second, the lack of stakeholder understanding of smart cities in the business world. Third, on the side of a limited budget for smart city development. Fourth, the consistency of data input. In Kediri City, consistency in data input is still not created properly so that the data does not become trash (spam).

Strategy to Increase Smart City Level in Kediri City

It is necessary to identify the city problems in order to develop a smart city. According to Budihardjo (Sumarmi, 2014: 112), to study all urban problems can be compared to living things including the physical side of the city (planning, urban blood circulation, urban innervation, city foundation and the spiritual side of the city (economy, politics, administrative, education, social, cultural, and religious)

There are 6 main points to develop a smart city in Kediri, such as the development and utilization of computer network architecture, information disclosure and economic and scientific stimuli, development of innovation and community creativity, stimulation of the enterprise and entrepreneurship side, a more participatory and democratic government structure, and balance of environmental, social and economic aspects.

5. Conclusion

From the analysis, the authors conclude that to increase the level of smart city in Kediri City, Kediri City government must be able to identify problems that hinder the development of smart city in Kediri City such as the quality of Human Resources (HR), lack of stakeholder understanding of smart city in the business world., budget constraints to consistency of data input so that data can be integrated with all services. The government is trying to accelerate the smart city level with the support of the Office of Communication and Information (*Diskominfo*) and the Public Relations Division as well as the existence of *Bimtek* (Technology Guidance) with the central government. In addition, increasing the smart city level must be supported by the theory of regional development, sustainable city development, and upgrading of information systems capabilities.

There is an increase in social welfare due to the role of the government which is increasingly responsive to problems because it is supported by appropriate information facilities. The increase in welfare is marked by an increase in the community's economy, easier access to education, health services and public facilities.

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