Digital Democracy and Regional Autonomy: Opportunities and Challenges Implementation of Medan Smart City Policy

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Abstract: In the last 10 years, the construction of office buildings, malls, roads, bridges to other physical infrastructure has been very important in Medan in the context of meeting the needs of the community. Unfortunately, the implementation of the development does not always run smoothly so that many development plans that have been prepared as a whole cannot be carried out properly. The reason is the development carried out do not comprehensively capture the needs of people who are active in Medan. The impact then arises further problems such as demands for improving public service facilities and social facilities, poverty, unemployment and others in the city of Medan. In an effort to anticipate these problems, city management is needed through a conceptual approach and sustainable planning. Currently the concept of smart city or smart city is being promoted in big cities in Indonesia. One of the most important dimensions of smart cities is that cities currently provide services through the latest technology in overcoming their problems. The purpose of this study is to describe the opportunities and challenges in the implementation of Medan Smart City policies and to find a model for implementing Medan Smart City system policies in the framework of regional autonomy and digital democracy.

1 INTRODUCTION

Smart city is indeed becoming a trend inIndonesia. Not just as a form of prestige forreferred to as smart city, but smart city isa great step forward in the cityin a country with an information technology baseand communication (ICT). Literally, smart cityindeed interpreted as a smart city withconcept designed in such a way as tocommunity interests, especially in managementresources to be efficient and effective. In an effort to anticipate this problem city management is needed through a conceptual approach and sustainable planning (Rostiashvil, 2016). Currently the concept of *smart city* or smart city is being promoted in big cities in Indonesia. One of the most important dimensions of city intelligent *(smart city)* is that the city is now supposed to provide services through the latest technology and build infrastructure that smart so as to provide effective services and cost to the people who live in urban areas (Hall, 2000).

Since 2017, the Medan City Government has begun designing the Medan Smart city framework. Specifically related to flood monitoring, waste management systems and monitoring of waste volume based on technology, technology-based and online licensing administration systems to improve the quality of public services, monitoring systems in public areas to improve services for the community (Greco & Bencardino, 2014).

Where is related to access digital services in the form of applications to date there have been 67 public applications that were launched in the city of Medan by presenting sites and service applications. One example is the application of the *ATCS (Area Traffic Control System) system* by the Medan City Transportation Office and digital access to licensing services, online birth certificate registration, Medan City E-Planning, IMB Retribution Calculation, and other features related to e-*Government* (the site www.pemkomedan.go.id). Procedurally, the Medan City Government has indeed begun building s*mart city* since two years ago. However, in substance the model *Smart City* within the framework of regional autonomy that was built has not yet been fully implemented due to several constraints, one of which is the budget in developing *Medan Smart City* insufficient (Suhendra & Ginting : 2018:185-195).

Furthermore, the synergy of data between one agency and other agencies has not been fully reduced to one system making confirmation of problems

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related to validity has not been well connected. This is due to the fact that each government agency has its own data, such as: Statistics Indonesia (BPS) data, Bank Indonesia data (BI), City Government Services data and third party data from Community Social Institutions. Of course, the synergy of data in one system is very important in order to solve problems in Medan through *smart city*. Because, one of the main elements in implementing Medan Smart city is *big data.* Another problem is of course related to the unavailability of technological infrastructure and the *internet of things,* where the problem is that the public has not yet fully accepted the change in the digital direction. Therefore, a study entitled *Digital Democracy in Regional Autonomy: Opportunities and Challenges in Implementing Medan Smart City Policy* is important to be carried out in the context of implementing Medan Smart City in overcoming problems in Medan City.

2 METHOD

This research is a qualitative research with a positivist paradigm in analyzing problems. Technically, the researcher collected data using the interview method as primary data. Then secondary data from international journals, books and news. The collection of research data is then carried out through a review of documents or reports relating to the focus of research conducted based on digitalization, smart city terrain, urban issues to the welfare of the community.

3 RESULTS AND DISCUSSION

3.1 Medan City Problem

The main problem in urban areas is the complexity of the problems in it, such as; road congestion, a large volume of waste, flooding to the problem of poverty. The reason is that the city has a very rapid change in dynamics due to the concentration of activities and the concentration of functional activities related to community activities. Primarily related to development in order to overcome the problems that exist in urban areas. Medan City is the 3rd largest city in Indonesia after DKI Jakarta and Surabaya. Medan City has 21 Districts which according to North Sumatra Central Statistics Agency (BPS) data in 2016 amounted to 2,229,408 people (Badan Pusat Statistik, 2016). In the past 10 years, the construction of office buildings, malls, roads, bridges to other physical infrastructure has been massive in Medan in the context of meeting the needs of the community. Development continues to develop dynamically over time and is often seen as a result of large population growth as is common in urban areas.

Basically the implementation of the development does not always run smoothly so that many development plans that have been prepared as a whole cannot be implemented properly (Hansson dkk, 2014). The reason is that the dynamics of development carried out do not comprehensively capture the needs of people who are active in Medan. The impact then arises further problems such as the demand for increased public service facilities and social facilities, poverty, unemployment and so forth in the city of Medan.

The city of Medan as the capital of North Sumatra Province holds the status of a Government Center, a center of economic growth and a center of development in North Sumatra Province which demands this city to continue to grow. Along with that, it is of course needed to support adequate infrastructure. Based on this thought, the writer feels interested in conducting research on the condition of infrastructure infra structure in the city of Medan, one such infrastructure is drainage. Infrastructure facilities The selected drainage infrastructure is due to flooding in urban areas in urban areas. In addition to being a metropolitan city, Medan also bears the third busiest city label in Indonesia in terms of economic activity, trade and population dynamics. However, the city that receives the Adipura Cup still has a serious problem that is very disturbing, both citizens and government. Ie flooding. It was quite heavy rain one night, so the streets of Medan City were flooded which affected the road damage.

Economic improvement, escalation of population quantity, became the main trigger for the increasingly widespread concrete forest in the form of many buildings, shop houses (shop houses) that were built for residential and commercial centers in the city of Medan. Shallow rivers and canal dysfunction also contribute to the river's overflow. The lack of Green Open Space (RTH) makes water absorption less and less, not to mention clogged drainage channels. If the symptoms that cause flooding are not immediately dealt with seriously, then every year the city of Medan will be flooded every time heavy rains hit. And if this happens, it will not only cause material loss, but also hamper people's activities to continue to progress and develop and become a barometer that the government and the community cannot overcome the problem of flooding that often comes each year.

It is undeniable that the ability of rivers to collect water is a benchmark for flooding in the city of Medan. Moreover, if the water discharge exceeds the capacity of the river, then the water overflows and causes flooding. Many factors that cause flooding are increasingly becoming a vital cause of flooding in Medan, including erosion, sedimentation, changes in land use, rubbish heaps, drainage paths, and the increasingly lack of absorption of trees due to the narrowing of Green Open Space (RTH). Regarding erosion, the body of the river is slowly being eroded by the river's current, causing a shallow river. There are at least 9 (Nine) rivers that cross the city of Medan. Where three rivers are Deli River, Denai River and Barura River which are most vulnerable to overflow and cause flooding. Not only that, other rivers in the city of Medan experience the same thing if the water discharge increases during heavy rains. This is due to the worsening condition of the river basins (DAS) of these rivers. Damage and narrowing occurred in the river due to the presence of buildings a distance of only a few meters from the river mouth. Moreover, the pile of garbage that settles its huge volume in the river body also forms a dam that during heavy rains will spill out.

Then, the upstream river watershed in Medan originating from hilly areas with diverse topography, between ramps, steep and steep so that there are some waterfalls are damaged. For example the upstream watershed of Deli River which is a Grand Forest Park (Tahura) in Karo Regency and Deli Serdang Regency is experiencing ecological problems due to *illegal logging*, forest encroachment and land conversion. Not only that, a big city like Medan like it has a good layout also about the Green Open Space. Because the standardization of *Sustainable Development Goals (SDGs)* and law number 26 of 2007 on Spatial Planning requires each city to provide a minimum of 30% of green open space from the total area of the city. The fact is the Green Open Space (RTH) of Medan city only reaches 10%.

3.2 Inter-interest Cooperation in Medan City Implementation

Medan Smart City not be separated from the role of the stakeholders. Mainly the government, technology and society. The role of the Medan City Government plays an important role in realizing the creation of the Smart City through the establishment of plans, determining the necessary regulations, planning for funding, building systems and infrastructure based on technology, and managing.

This collaboration between stakeholders in the city of Medan enables innovations that can be utilized to maximize the services of the city government in various key fields relating to human resources and technological resources. The city of Medan has started implementing e-government since 2010 and the system continues to be equipped and updated in accordance with the needs of its citizens to the present with the aim of cooperation between these interests can be useful for the community.

According to social media activists who are also observers of the development of Medan City Hatta Ridho who said:

> "Medan Smart City utilizes young people who master information technology to make improvements to the system so that service to citizens can be maximized because it requires established mastery of technology in collaborative collaboration between stakeholders."

3.3 Medan City Smart

Since 2017, the Medan City Government has begun designing *the* Medan Smart city framework. Specifically related to flood monitoring, waste management systems and monitoring the volume of waste based on technology, technology based and online permit administration system to improve the quality of public services, monitoring systems in public areas to improve services for the community. In an effort to anticipate this problem city management is needed through a conceptual approach and sustainable planning. Currently the concept of *smart city* or smart city is being promoted in big cities in Indonesia. One of the most important dimensions of intelligent cities *(smart city)* is that the city is now supposed to provide services through the latest technology and intelligent building infrastructure so as to provide effective services and the cost to the people who live in urban areas.

Furthermore, based on the experience of several countries in implementing the smart city program, it is emphasized that it is important for a city to have a clear vision in implementing the smart city program in overcoming problems in its region. (Anindraet al., 2018) The vision is translated into focus areas or aspects that will be developed through the smart city program. The aim is to identify the needs of Medan city residents so that the development carried out can be more directed not to experience destruction during the development process and problem solving.

The Medan smart city concept was adopted from smart cities that are able to overcome their problems independently who both view that humans are the most important aspect in implementing smart cities.

Humans are the decision makers and the deciding direction of the development and development of a city. Moreover, aspects of governance that are more transparent, serviceable, and innovative are also the focus of smart cities in Medan. The Medan city government is trying to change the way of thinking of government officials and staff (SKPD) in managing the city of Medan.

In addition to the clear focus on the implementation of the smart city program in Medan, leadership is also a significant factor in the success of Medan Smart City. This potential is supported by a good desire to improve the city and experience in running the government in Medan City. Based on the data obtained, when the smart city program in Medan City was implemented, several government agencies (SKPD) in Medan admitted that they were not really ready for change.

According to the Head of the Office of Communication and Information of Medan City, Zain Noval, who said that:

> "In general, in realizing a smart city in Medan City, each Regional Government must first establish a vision, mission, strategy, goals and development program that shows a smart city that is making the city a Metropolitan City that is Competitive, Comfortable, Caring and prosperous".

Utilization of information and technology in the Medan Smart City concept is currently not able to be carried out in its entirety. Because the issue of human resources in Medan City is not yet fully literate with the internet. Then, the urgency of realizing a smart city in Medan should be a serious concern (Gerodimos, 2016). Remembering big cities become urbanization magnets. The acute problems of urban society such as high population concentration growth are not followed by a speed comparable to the development of industrialization. This problem eventually led to the phenomenon of over urbanization. Over-urbanization will not only cause problems in the destination city but also in abandoned villages. Such as increasing poverty and slums and crime in urban areas.

According to the Head of the Office of Communication and Information of Medan City, Zain Noval, who said that:

> "The Medan City Government continues toinnovate in providing services to the communitythrough the use of information technology bybuilding Data Centers that function to assistleaders in formulating development policies. This Data Center has begun to be integrated with anumber of regional apparatus organizations,including Bappeda, Dispenda, and the RegionalFinancial and Asset Management Agency."

4 CONCLUSION

Medan City Government currently has the desire to make a smart city, provide quality life for its people, and provide good and effective services to all people who live in the city. Then the Medan City Community Support played a role in realizing the creation of the Smart City through community support for programs, policies, regulations (regulations) and the Government's commitment to realize a smart city. The community support can be in the form of direct participation to be actors in building smart cities, maintaining well the facilities and infrastructure that have been built by the government in supporting the realization of smart cities, delivering innovative ideas or suggestions to improve the existing system better. Every community has a high concern and social towards the environment, each individual is able to create comfort and security in the surrounding environment, as well as having a good attitude and behavior with each other.

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