Challenges of Smart City:

Local Government in Pekanbaru City and Community

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Abstract

Every government in the region along with its ranks is entering the era of digital governance that demands all supporting elements in the government to be carried out by the Pekanbaru City Government. Smart City Madani is the tagline of the City of Pekanbaru since the reign of Mayor serving Firdaus, S.T, M.T entered his second period, changes in innovation efforts towards the smart city were carried out. Innovation in a smart city is not only enough from the government, but also the community that signifies a smart city to achieve better open government goals. This article will present an in-depth analysis of the challenges of realizing smart municipalities in the city of Pekanbaru. The research method used is direct observation and supported by the literature related to the focus of this article. From this article addressing the challenges faced and will be faced to achieve a smart city, with all the potential that exists in Pekanbaru City. the main challenge in smart cities is the government itself, which must have speed, agility, and adaptability. society becomes a challenge with digital-based forms of public service

Keywords:

smart city, e-government, government, community

Introduction

Smart city not only improves and fixes the pattern of government in the government sector, but also in the governance sector which means not only the government but also the people. Changing your lifestyle means you are ready to get out of your comfort zone. The smart city is certainly one of the realities of democracy, as a country whose democracy demands the intelligence of the people and the openness of public information. The levels of central, provincial, district / city to village governments apply the e-government pattern in their administration, of course at the level according to the capacity of the organizer. Smart city is a digital era where the community is always active for 24 hours, and the government must respond and respond within 24 hours, that's the agile government.

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The city of Pekanbaru makes its city tag line with Smart City Madani, with a number of targets from the efforts of the Pekanbaru City government to become a smart city, by demanding government administration from the village, sub-district, and SKPD. One form of the embodiment of smart city in Pekanbaru City, the government is currently creating a Public Service Mall that makes it easy for people to meet their needs, in one digital-based service center. The variety of services in one place is one form of e-government implementation, but not the only one that must be completed in realizing Pekanbaru Smart City Madani.

Bandung City is one of the ranks of cities in Indonesia that has succeeded in implementing the concept of Smart City, which is fulfilled by Bandung Smart City which is supported by the Bandung Command Center namely to observe, to connect, and to control. The mayor of Bandung at the time was Ridwan Kamil, who initiated Bandung as a leading, intelligent city, one of which was in line with current global trends in the use of information and communication technology.[1]

Pekanbaru City Government and the City of Bandung are certainly different, but characteristically have in common an innovation that was born of the Regional Head who has a base of Engineering graduates. As a central actor in influencing an administrative area, of course it needs a dominant role in it, creative ideas that are raised are supported by good support systems. Fundamental needs must be able to transform society into smart people, smart living, and in the complete package of smart city there are also smart governance, smart mobility, smart environment and smart economy.

The fact is that the city of Pekanbaru has not fully embodied the concept of the smart city itself, because it is indeed the biggest fundamental challenge besides being able to answer and help people to follow the changes of the smart city. The basic challenges that are central to almost 500 cities in Indonesia are infrastructure and then human resources. Therefore, success in implementing e-Government is very important, with special attention given to developing countries, because these countries have limited resources and are unable to waste large amounts of money needed to implement e-Government (Weerakkody, V., Dwivedi, Y. L., & Kurunananda, 2009).

This is in line with the challenges of e-government internationally (Alcaide Muñoz & Rodríguez Bolívar, 2017) in addition to these obstacles, the developed and developing world

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[1] https://commandcenter.bandung.go.id/

is taking steps towards ICT implementation, and e-government initiatives are reaching a higher level of sophistication and maturity. Thus, in this rapidly changing environment, there is a need for governments to take a step back and rethink their e-government goals and strategies.

This article will analyze the obstacles and challenges of implementing smart city in Pekanbaru City, not only at the point of government level but also to the community itself, because of course the fundamental objectives of Pekanbaru Smart City Madani. The top platform for implementing smart city policy is certainly a challenge for local governments to guarantee the quality of public services.

E-government is not only about the readiness of developed and developing countries but also about creating a collaborative research framework that can lead to a better diffusion of best practices and their feasibility. The readiness in question is not maximally fulfilled because the infrastructure currently formed at the Public Service Mall and Command Center only, and the benefits have not been felt for the public and a number of points in building government systems that are mutually integrated and connected to support the smart government and smart society. Smart City Madani Pekanbaru City also adheres to the same pattern of involving the community to participate in giving criticism and input, but the space has not been fulfilled by the Pekanbaru City Government.

To integrate the e-Government implementation at the local and central governments, the government will carry out to:

a. Establish legal framework based on President Regulation Number. 95/2018 on E-Government;

b. Evaluate the implementation of e-Government at all government institutions; and

c. Perform public service integration among government institutions.

E-government demonstrates the value of open society that emerged from the U.S. administrative system in the 21st century, to build a reliable information system by which to empower public participation and produce good governance (Graham, 2002). The simplest participation in bringing participation from the community is to bring up collaboration. Collaboration is a must in an open government structure. People often access government websites to collect the information or data they need, but in reality, they rarely expect to collaborate with government (Sandoval-Almazan, R., & Gil-Garcia, 2012).

These limitations support the lack of control and vision mechanisms, and coordination between government departments, cause efficiency problems and limit participatory processes. Also, the lack of cooperation within government and the lack of coordination between departments support the adoption of rigid structures that do not encourage open debate and open concepts (Sharifi, M., & Manian, 2010). The lack of support from key public leaders can be reflected in the lack of proper Government ICT policy formulation to promote information dissemination, proper planning for adoption and diffusion of ICT development network infrastructure, and stimulate increased productivity and creativity (Navarra, 2010).

Pekanbaru follows the progress of the era of digital-based government, digital bureaucracy and digital service to the community. Digitalization which is then packaged into a smart city certainly has many challenges that must be properly addressed, the ability of human resources who will run the digital bureaucracy later, the technology that is perfect for running the digital system itself and the people who are ready with eye intelligence in entering the era digital. The challenge is quite heavy if the government is not able to present an agile government figure, the agile government means that it can read the situation and respond by presenting the right policies in addressing any existing conditions.

Agile mastery in bureaucracy have three point:

1. Inclusion is fluent in the relevant customer-experience framework and uses it effectively. Lives the company's diversity and inclusion values

2. Technology, leverages (eg, refactoring, pair programming) and automation tools to increase speed. Understands end-to-end production cycle and how to navigate release challenges.

3. Process, understands the various agile roles and can coach beyond squads. Understands and effectively empowers squad and tribe-level events.

An agile government is certainly in the concept of smart ciy, so there is no room for failure and delay in providing services to the community. Process changes that are slow and heavy, become very responsive and real time. Pekanbaru City has yet to deliver smart cities and communities to have very competitive competitiveness and investment power, because bureaucratic and community resources are not spared a challenge. Technically that is the budget allocation that can perfect a system and facilities in presenting smart city, because the goal of smart city is to change the life pattern of a city with intelligence, modernity and

presenting technology. The public sector is still perceived to be behind the private sector on key measures of service delivery (*Delivering Digital Government : The Australian Public Scorecard*, 2017).

Presenting smart city means the city government of Pekanbaru, is ready to present its agile bureaucracy, produce and meet the standards of an agile government format, which has four important points of ability:

1. Short Term Frontlines Responsiveness

2. Strategic Adaptation

3. Outcome Focus

4. Long Term Shaping

5. Preventing or Reducing Problems Before They Arise

Short-term response which means it can be present 24 hours and 7 days a week to provide public services, to the community it is no longer limited in office space and desks as in the classical bureaucracy that is sometimes complicated. The strategy made by the Pekanbaru City Government in the Madani smart city, must be able to be adaptive to all age groups of the people of Pekanbaru City. Later it will produce good performance achievements, no longer achievements only completing a service. Every step taken by the Pekanbaru City Government, which must be able to read opportunities in the future and think about the risks of failure or that might be faced. Responsiveness and responsiveness to bring a smart city.

Methods

The method used in this paper is descriptive qualitative, with a direct approach supported by secondary data and literature from previous research that supports the author's argument in analyzing. In this study, researchers used a qualitative method, namely research beyond various stages of critical-scientific thinking, in which a researcher began to think inductively, which captures various facts or social phenomena, through observation in the field, then they and then attempts to do theorization based on what was observed (Bungin, 2015). The locus in this article is in Pekanbaru City, as one of the cities investigating Smart City in Pekanbaru City. Pekanbaru City as a city that is strategically located close to neighboring countries, namely Singapore and Malaysia, and also its many incoming

investments certainly become superior potential in implementing Smart City. Pekanbaru City has a heterogeneous society, so the government is demanded to be an agile government in responding. So that it becomes an interesting study in analyzing this article in revealing the challenges of the Pekanbaru city smart city. Smart city from Pekanbaru city cannot yet match Bandung, or Jakarta.

Results and Discussion

Discussion of digital transformation is different from comparing to other places, and also if different from comparing based on time because it will produce an accurate value (*Delivering Digital Government : The Australian Public Scorecard*, 2017). Digital transformation forces a city and government to be able to compete with other places out there, whether from within the same country or from abroad.

The digital age is almost felt by the entire international community throughout the world. Network effects refer to the positive impact that the number of platform users has value created for each platform user. Positive network effects are the main source of value in a platform (Choudary, S. P., Van Alstyne, M. W., & Parker, 2016). In addition to preparing infrastructure, budgets and support systems from human resources, the Pekanbaru City Government, through the role of public leaders, is required to be able to stimulate productivity and creativity to be able to answer the challenges of the smart city to the community itself. The dynamics of the implementation of the Smart City Pekanbaru, city policy, also various aspects that must be met.

RPJMN or Rencana Panjang Jangka Menengah Nasional in Bahasa 2020-2024, with Ministry of National Development Planning/National Development Planning Agency, August 2019. Quality of public service from three things, state apparatus, government organization and business process and performance accountability, monitoring and evaluation. Bureaucratic reform agenda 2010-2025 is expected to improve operational capacity and accountability, public value, and to create clean government. Such changes are required to achieve public trust.

As per the locus of this article the Smart City challenges the government and the community. The following is the polarization of Smart City Madani Pekanbaru City, and the position of the actors who can provide their soft power to succeed in the implementation of

Smart City with the six pillars of the achievements of smart people, smart living, smart governance, smart environment, smart mobility and smart economy. Digitization and innovation are the key to improving government service delivery. At the end about Smart City is the online services were ranked as the highest priority overall, followed, closely , by walk-in service and call center in real time (*Delivering Digital Government : The Australian Public Scorecard*, 2017)

Figure 1.
Smart City Madani Polarization City of Pekanbaru
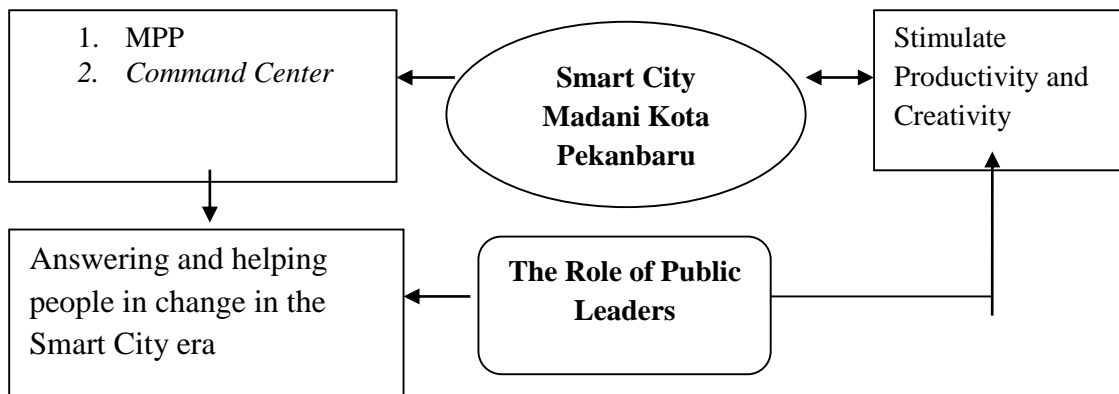
Source : Research result, 2019

The picture above is an analysis that is considered by the author in answering the situation of madani smart city in Pekanbaru City, which needs to be dominated by leaders because it is true that the smart city of madani cannot be separated from the initiative of Pekanbaru Mayor Firdaus, S.T, M.T. At present the form of the realization of smart city, Pekanbaru City is only at the preparatory stage. Consolidation begins by presenting the MPP (Public Service Mall), not only one door but also provides services in one place that can be done by the public in various types of services in the same place. Pekanbaru City Communication, Information and Encoding Unit also presents the wheelhouse. The wheelhouse or command center is the same as that presented by Smart City Jakarta and Smart City Bandung, but with smaller and do not have direct utilization for the community. Only those two things are carried out in Smart City, the use of smart living for the community for existing city parks is not optimal.

MPP (Public Service Mall) which is a development of the One Stop Integrated Service Office, is one of the innovations of the Mayor of Pekanbaru, and this makes it easier for business people to register their businesses. Ease and fast process become a stimulus in presenting a creative economy that is increasingly mushrooming in Pekanbaru City today.

Millennial generation and generation Xers are currently very much utilizing digital facilities from the Government, which is a challenge today besides the community itself is also a challenge of the global digital era. So the government needs to present policies that help and address the needs of the community in smart city discourse.

The polarization flow above explains the analysis map that must be raised in realizing smart city, the responsible actor is the regional head supported by a creative and innovative support system because budget and infrastructure are the main factors but not the main factors in influencing the success of the full implementation of smart policies in the city. The Mayor of Pekanbaru as the main leader in implementing smart city policy, conceptualizes Smart City Madani in Pekanbaru City, one that emerges from the reality of smart city in the form of Public Service Mall and Command Center. Two large properties that already exist are certainly an effort to support smart city, from the two periods occupied by Mr. Firdaus, ST, MT. smart city should be able to stimulate and foster creativity from the community, when analyzing a challenge from a smart city then not the community becomes the main challenge but also the government as the organizer of the government. Smart city is a digital-based public service, Much public administration is ideally suited to robotic applications.

Communities are facilitated in matters of public service in one place, with information flow and procedures that some have used technology. The author has not found significant utilization obtained from the Command Center, this is different from the Command Center function in the smart city which is implemented in the City of Bandung and the City of Jakarta. Urban parks for one form of education in smart cities are also supported by internet facilities, as has been done by the Mayor of Surabaya during his mother's Tri Risma Harini. The three cities are developing under an innovative and creative leadership, because looking from the target of the smart city itself can reach many generation categories. The following generation matrices are part and parcel of smart cities (Mergel, 2012).

Table. 1.
Citizens' characteristics via Gov 2.0

Dimensions	Millennials	Xers	Baby boomers	Matures
Technology orientation	Digital natives	Assimilated	Acquired	Digital divide
Age	13-24	25-41	42-60	61-75
Interactive style involvement in decision-making.	Participative collaborative.	Entrepreneur efficient.	Team player equal.	Individual conservative.

Typical activity	Create communities and social network of peers.	Create, critique, and propose own views.	Join, read and use social networking sites.	Lack of access and motivation.
Perceived benefits.	Relaxed	Unimpressed	Impressed	Respectful
Averenge percentage.	Medium number of the population.	Small number of the population.	The remaining part of the internet population .	The rest of the unconnected population.
Respon to participation.	Low interests to participate.	Respon to government calls to participate.	Do not respond to government calls to participate.	Cannot respond to government calls to participate.

Source: Research Results

The table shows that the target market of smart city itself, has five characters with their respective age levels. The challenge from the side of community groups is that it must be understood that the people of Pekanbaru City are heterogeneous, of course within the heterogeneity they have more groups to represent an entity. If the group is seen from the point of view of the subsidiary can contribute to bring policies from below, the policies from below are very positive points of view for the government to produce policies and implement them (Schumaker, 2018).

The response from every participation when viewed from the age group has a variety of perspectives, and sees the government in their respective perspectives. The perspective of each respondent from all ages, from Millennial and Matures, must be answered by the government in responding to producing the right smart city.

Smart city must understand what kind of treatment should be done, for each group from the table above. So that gave rise to the perception that citizens prefer online channer preferences for contact with government sercives, citizen are very positive about online government service, and citizens confidence is influenced by latent disposisitions (*Delivering Digital Government : The Australian Public Scorecard*, 2017). Smart city Madani Pekanbaru City, of course, must understand and capture the pattern of three things that must emerge from the perception of the community to bring public confidence in the city government Pekanbaru.

So that the cretivity and produtivity produced must be able to touch the aspects of these characteristics. What happened in Pekanbaru City on the day of implementing the Smart City Madani policy hasn't touched on that. The critical analysis and findings in this article are not only the implementation of e government G2G (Government to government), but also

G2C (Government to citizen) and G2B (Government to business). Smart city is more complex than just analyzing digital-based government, because the community must be demanded to be smart and take part in smart city, not just an outstanding one bureaucratic system. Although it can be realized that the Pekanbaru City government has not been able to do so, the smart city of Pekanbaru city is currently at the stage of technical preparation, preparation of human resources and a large budget allocation. Changing the bureaucratic mentality and changing the mentality of the community is still a challenge of the Smart City Madani Pekanbaru City, it is no longer a matter of who becomes the Mayor but a leader who can be the main supporter and support in guiding his staff seriously in producing smart city. The comparison is not to who was the Mayor of Pekanbaru before, the present, or the future. The comparison that must be realized is that smart city means that it can compete in quality with government, public, private and community officials with other smart cities out there.

Smart city infrastructure cannot be released with the public, internet facilities as public access are an indication of smart city. As a form of early education smart city for the community. The various characteristics of the people of Pekanbaru City must be able to prepare strategies that are right on target. The high number of internet users is exploited by millennials, and all product creativity in the e-government era. In such an environment, given the positive public perceptions of on-line service delivery identified above, we strongly believe that digitisation could be used as a very effective tool for rebuilding trust with the public (*Delivering Digital Government : The Australian Public Scorecard*, 2017).

The concept of smart city is not novel, but in the recent years it has taken on a new dimension of using ICTs to build and integrate critical infrastructures and services of a city. The initiatives of making a city smart have recently emerged as a model to mitigate and remedy current urban problems and make cities better as places to live. Hence some view smart city as an icon of a sustainably livable city. Yet, so far we see academics have seldom tackled the practical concept. Considering that, we take an analytic look at the conceptual identity of smart city. A smarter city infuses information into its physical infrastructure to improve conveniences, facilitate mobility, add efficiencies, conserve energy, improve the quality of air and water, identify problems and fix them quickly, recover rapidly from disasters, collect data to make better decisions, deploy resources effectively, and share data to enable collaboration across entities and domains (Nam & Pardo, 2011).

Smart cities can also be synonymous with intelligent cities, information cities, virtual cities, amongst many other nomenclatures, but here our usage pertains rather narrowly to data and theory that brings much more immediacy to our urban understanding. Smart cities belie a shift in this emphasis to a deeper understanding of how urban systems function in the short term (Batty, 2013).

The efforts that have been made are an indication of the efforts of Smart City, but have not yet moved towards the six targets as expected by the Mayor of Pekanbaru. The role that really needs to be present cannot be separated from the central head of the region, which is supported by a creative team. When it comes to the concept of a smart city that is not a novel, which means that it is only stated in the vision and mission and looks rigid in its implementation, it cannot contribute in realizing smart city. An understanding and courageous figure is needed in actualizing innovation to create a smart city, Indonesia's demographic bonus in the future will also be met by Millennials and Xers. Millennials as a create communities and social network of peers, Xers as a create, critique, and propose own views.

This means that in a smart city policy implementation must be dynamic, with very fast movements due to the dynamism of the changing digital era at this time. If Europe has indeed completed actualization, Indonesia and the city of Pekanbaru will be demanded to be able to produce creative and productive actions themselves, supported by the maturation of human resources as a support system. Embracing 4.0 with three pillars:

1. Artificial intelligence
2. Digitization
3. Internet of things

Artificial intelligence facilitates big data and automation of process for a more effective and efficient government. With the clues faster, better and cheaper. Digitization allows for business processes to be computerized and integrated to the internet and implemented through al, and to be greater citizen engagement. Internet of things, and be greater transparency, internet allows for connectivity that tears down the walls of distance. Smart city with the new forces in bureaucracy with internet of things. Other types of innovations that share similar characteristics as e-government innovations. The dynamic nature of a knowledge vacuum enables researchers to take variables such as inter plays among structure

and behavior, different organizational forces, and time into account under the comprehensive frame work of organizational and policy learning (Choi & Chandler, 2019)

Smart city is the goal of the Pekanbaru City Government, with the allocation of the amount of preparation costs that must be spent is not small and the benefits obtained have not been felt to the maximum. These benefits are limited because they have not yet been established, the smart city madani Pekanbaru City is only in the preparation stage. Limited human resources are still limited to run digital-based systems.

The limitations of digital infrastructure that have not been able to perfect the implementation of e-governement. The most important thing in smart city is the overall unpreparedness of the community to succeed in smart city, education and productive age with a generation of digital literacy are indeed many but have not comprehensively shaped the society of all groups supported by not being integrated in the resolution process. ICT allows for real time connectivity and digitization allows for more reliable and efficient data collection. This step identifies potential digitization opportunities such as through IoT and sensor functions.

Conclusion

Smart city Madani Pekanbaru City, has not touched all aspects of realizing the intended smart city. Smart city requires an agile government, capable of responding to people quickly and agile. But not yet for the city government Pekanbaru, so too goes beyond the limitations that exist in society. The command center has not been able to fully facilitate the realization of smart city. The position of regional head who has not been able to conjure smart cities for two periods is intact. The challenge of smart city is certainly on the community itself, and the presence of a dynamic leader is needed and able to answer the challenges of the international world because at the end of the talk smart city means we are ready for the era big data. The challenge that must be met by the Pekanbaru city government, through the Mayor and the bureaucracy is to have a harmonized policy and a strong commitment. Society depends on the government in providing translations of a concept from smart city.

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