

Smart City Public Service Strategy in Achieving Good Governance in Kota Kupang

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ABSTRACT

In order to achieve public service, it can't be separated from the concept of good governance. Along with the times followed by the rapid development of technology. The development of technology has not failed to become a new breakthrough, which is used by the city to provide the maximum possible public service for its residents, and that's why the concept of smart city emerges. This research's purpose is to comprehend Kota Kupang's smart city public service strategy in creating good governance. This research was conducted in Kota Kupang. The population is all Kota Kupang's citizens. Sample used is all Camat and Lurah in Kota Kupang, respectively 6 camat and 51 lurah as the representatives of citizens of Kota Kupang. The analytical tool used is SWOT analysis (strength, weakness, opportunity, and threat) to see what strategy best applied by Kota Kupang in implementing the program of smart city public service in achieving good governance. From the results of SWOT matrix, we can conclude that the concept and the implementation of smart city in Kota Kupang has received formal legitimacy by the stakeholders and have legal protection although currently not all public services lines in Kota Kupang are covered by the smart city. Besides, there are chances in the implementation of smart city that still can be maximized to reduce existence threats.

Keywords: Good Governance, Kota Kupang, Smart City, Strategic, SWOT

1. INTRODUCTION

Public service cannot be separated from the concept of good governance. The concept of good governance is a process of good governance, involving stakeholders on various economic, socio-political, and human activities for the benefit of the people carried out by adhering to the principles of justice, equity, equality, efficiency, transparency, and accountability [1]. The concept of smart city emerges due to the development of technology.

The concept of smart city itself, originally, was echoed by IBM, a well-known computer company in America. The company introduced the concept of smart city to improve the citizenships' living quality. The main developing aspects of smart city are smart governance, smart technology, smart infrastructure, smart healthcare, smart mobility, smart building, smart energy, and smart citizens [2].

The purpose of the smart city itself is to form a city that is comfortable, safe, and strengthens competitiveness in the economy. Smart city has become an interesting identity that attracts many researchers'

attention. Not only because the city has rapid dynamic changes, but also because there are a lot of predictions based on research's results that almost 50% of world citizens will stodge cities [3]. As a result, cities are increasingly facing enormous and complex challenges related to the facilities provided to their citizens. Basic needs such as health, education, public transportation, so that city residents feel the safety, comfort and happiness of living in their city must be fulfilled by city managers [4],[5], and [6].

In Indonesia, the concept of smart city was initiated by the experts from ITB, Suhono S. Supangkat. Suhono said that the concept of smart city is a city development and management by utilizing information technology (IT) to connect, monitor, and control various resources in the city more effectively and efficiently to maximize services to its citizens and support sustainable development.

Kota Kupang is the capital of Nusa Tenggara Timur Province. Based on the population projection results, it is estimated that the total population of Kupang City in 2019 will reach 463,351 people with a population density of 25,570.32 people per km².

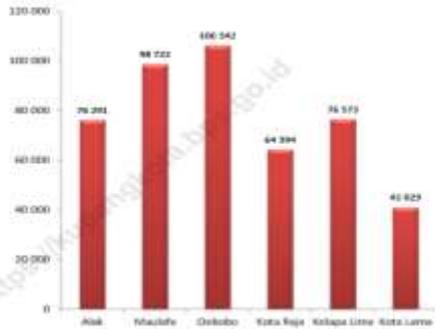


Figure 1 Total Population in Kota Kupang, by sub-district, 2019

Source: BPS Kota Kupang, 2020

Table 1. Pure Participation Rate and Kota Kupang Education Gross Participation Rate, 2018

No	Educational stage	Aged Category	Pure Participation Rate	Gross participation Rate
1	SD/MI	7-12	90,55	113,34
2	SMP/MTs	13-15	73,94	111,89
3	SMA/SMK/MA	16-18	65,97	92,41
4	Perguruan Tinggi	19-24	46,98	65,56

Source: Kota Kupang Dalam Angka, 2019

The population of Kota Kupang is the second largest after Timor Tengah Selatan regency (468.350 inhabitants). With such a large population, Kota Kupang is burdened with problems with the welfare of the population.

The attractiveness of Kota Kupang as the center of government and business center makes this city crowded with job seekers. According to Survey Angkatan Kerja Nasional (SAKERNAS) 2018, there are 18.408 people aged 15 and above, who are unemployed in Kota Kupang. The results of Survei Sosial Ekonomi Nasional (SUSENAS) in 2018 shows that the poor population in Kupang City has reached 40,440 people.

However, Kota Kupang has a majority educated society. The following is a table of education levels in Kota Kupang.

With the educational level conditions earlier, it can be said that most residents of Kota Kupang are well educated, which are expected to be able to support the smooth implementation of a smart city where good Human Resources (HR) are needed in its management. Based on data obtained from [7], a total of 89.70% of Kota Kupang residents have cell phones (HP), amounting to 62.89%, are active internet users. With this capital, the Smart city concept is expected to be able to reach all the people of Kota Kupang through various

Smart city applications distributed by the Kota Kupang Government.

The Head of the Indonesian Ombudsman Representative for Nusa Tenggara Timur, Darius Beda Daton, said that the level of compliance with public service standards in the Kota Kupang Government is still in the red zone with a low compliance predicate. According to him, based on the results of the assessment of public service standard compliance with administrative service products in the Kota Kupang Government, the score was 46.02 percent or in the red zone (<https://kupang.antaranews.com>). The assessment was carried out on as many as 62 administrative service products in 13 government regional apparatus organizations (OPDs) in the capital city of NTT Province in the July-August 2019 period.

The low compliance of Regional Apparatus Organizations (OPD) to the implementation of Public Service Standards is a major obstacle to the quality of service in all Kota Kupang government agencies. The low compliance/implementation of Service Standards resulted in various types of subsequent maladministration dominated by apparatus behaviour, for example unclear procedures, uncertainty of service tenure, illegal fees, corruption, uncertainty in investment licensing services, arbitrariness and at a macro level resulted in low quality of public services. This results in a high-cost economy, barriers to investment growth, and of course has an impact on decreasing public trust in the apparatus and government which has the potential to lead to public apathy. The result is corruption, bureaucratic inefficiency and low quality of public services

The smart city concept is expected to bring solutions to Kota Kupang public service problems and provide benefits to the government and society, namely improving the quality of life such as efficiency and effectiveness of regional resource allocation, reducing gaps in society, reducing congestion for road users, transparency and public participation, public transportation, cashless transactions, waste management, reducing pollution and exhaust emissions, energy, security, data and information. With the increasing quality of life of the community, it is hoped that it will create good governance.

2. LITERATURE REVIEW

2.1. Public Service

According to [8], public service is activities or series of activities to fulfil the needs for services in accordance with statutory regulations for every citizen and resident for goods, services and/or administrative services provided by public service providers. According to [9], the administration of public services is a state effort to

fulfil the basic needs and civil rights of every citizen for goods, services, and administrative services provided by public service providers. In this study, Kota Kupang government provides a smart city program as a form of public service innovation that will facilitate access to all government services for the community. According to article 5 of [8], "The scope of public services includes services of public goods and public services as well as administrative services regulated in statutory regulations". Based on the description of the definition of public service, it can be concluded that public service is any service activity provided by the government to the community, both public goods and public services.

2.2. Smart city

One of the most important dimensions of Smart city is that the city is supposed to provide services utilizing recent technology, and develop smart infrastructure, so that it can provide effective and inexpensive services to all people living in the city. Efficient in energy use, public transportation is a necessity and an adequate supply.

The following are some of the benefits of the Smart City concept: (1) Fixing problems in the community; (2) Improve public services; (3) Creating a better government; (4) Educating the community; (5) Managing city’s potential and human resource’s potential



Figure 2 Components of Smart City

Source: The Ministry of National Development Planning/National Development Planning Agency

The following are some challenges for smart city developer: (1) Infrastructure: the availability of information and communications technology (ICT) infrastructure is still a big challenge in achieving a smart

city; (2) Socialization: socialization takes time and social adaptation is not short; Security: even though they need fast, precise, and accurate information, people still need security in accessing information. The various challenges above correlate with a number of smart city success factors, as below: (1) Human; (2) Government’s commitment; (3) Fiscal space

2.3. Good Governance

The term good governance was first popularized by two international institutions like the World Bank and United Nation Development Program (UNDP). The World Bank defined “governance the way state power is used in managing economic and social resources for development society”. This definition depicts that governance is how a country manages economic and social resources for community development. This method is more of a technical nature. In line with the World Bank's opinion, UNDP put forward a definition of governance as “the exercise of political, economic and administrative authority to manage a nation’s affair at all levels”. The word governance means use or implementation, namely the use of political, economic and administrative authority to manage national problems at all levels.

The main key of understanding good governance is to understand its principles. The principles of good governance according to Lembaga Administrasi Negara (LAN) are: (1) Participation: the community participates in decision making, both directly and indirectly; (2) Law enforcement: there is support from law enforcement officials to prevent public participation from turning into anarchic action; (3) Transparency: transparency is the principle of openness in the development process for the realization of good and clean governance; (4) Responsive: the government must be responsive in dealing with various problems of society, and meet the needs of society; (5) Consensus: this consensus principle requires that every decision must go through a deliberative consensus process, and every decision issued must be compelling against all those involved in the consensus; (6) Equality; (7) Effectiveness and efficiency; (8) Accountability; (8) Strategic vision.

3. METHOD

This research was a descriptive study conducted with a quantitative approach. The method of collecting data was through a questionnaire. The population of this research was all citizens of Kota Kupang. The sample was selected using purposive sampling, namely the Camat and Lurah in Kota Kupang as representatives of the citizens of Kota Kupang.

The analysis used in this research was a SWOT analysis to identify the strengths, weaknesses, opportunities, and challenges faced by Kota Kupang in

determining a smart city public service strategy in realizing good governance.

4. RESULT AND DISCUSSION

4.1. Result

4.1.1. Internal factor analysis

Internal factors are entered into a matrix called the internal strategic factor matrix or IFAS (Internal Strategic Factor Analysis Summary). From Table 3, it can be explained that the highest strength value is in the item ‘there is a regulation in the form of a regional regulation on smart city’ with a score of 0.38 and a weight of 2.14, while the biggest weakness is that ‘not all public service areas are reached by the smart city program’ with a score of -0.51 and a weight of -1.97. This means that the concept and implementation of a

smart city in Kota Kupang has received formal legitimacy by stakeholders and has a legal protection, although not all public service lines in Kota Kupang are currently covered by a smart city.

4.1.2. External Factors Analysis

External factors are entered into a matrix called the External Strategic Factor Analysis Summary (EFAS) matrix. From Table 4, it can be explained that the highest opportunity value is in the item of ‘increasing the quality of public services’ with a score of 0.65 and a weight of 3.52, which shows that the implementation of smart city has changed the paradigm of conventional public services to be more modern, effective and efficient. Meanwhile, the biggest threat is in the item ‘security level of personal and government data’ which is still low with a scale of -1.20 and a weight of -3.29.

Table 3. Score, rating and IFAS score

Internal Factor Strategy (IFAS)	score	Rating	Score = Bobot x Rating
STRENGTH (S)			
There is a regulation in the form of a local regulation (PERDA) on smart city	2,14	0,18	0,38
The formation of a smart city council, an implementation team and a smart city forum to assist in the implementation and supervision of the implementation of smart city	1,99	0,17	0,33
The public has a high interest in smart city	1,93	0,16	0,31
Supports partner institutions in helping implement smart cities	2,00	0,17	0,34
Involving all parties in designing quick wins innovation by paying attention to regional strategic problems contained in the RPJMD	1,86	0,16	0,29
Kota Kupang is the center of education in NTT which is very fast and responsive in responding to any changes including the smart city program	1,99	0,17	0,33
Total Strength			1,99
WEAKNESS (W)			
Lack of socialization from the government regarding smart city	-1,93	0,25	-0,49
Lack of government apparatus preparation for smart city implementation	-1,86	0,25	-0,46
Many people do not understand smart city (clueless)	-1,84	0,24	-0,44
Not all public service areas are covered by the smart city program	-1,97	0,26	-0,51
Total Weakness			-1,90

Source: Primary data, processed by researchers, 2020

Table 4. Score, rating and EFAS score

External factor strategy (EFAS)	Score	Rating	Score = Score x Rating
OPPORTUNITY (O)			
Smart City is an implementation of the vision and mission of the Kupang City government	3,39	0,18	0,60
Smart city budget percentage in APBD	3,12	0,16	0,51
Availability of third parties/partners that support smart city	3,11	0,16	0,51
Gradual infrastructure development to support smart city	2,71	0,14	0,39
The emergence of various business activities through the implementation of a smart city	3,23	0,17	0,55

Improvement of public service quality	3,52	0,18	0,65
Total Opportunity			3,02
THREAT (T)			
The level of security of personal and government data is still low	-3,29	0,38	-1,17
Software that is prone to hacking (cybercrime)	-3,33	0,34	-1,00
Monopoly on software and hardware technology by certain parties	-3,37	0,28	-0,84
Total Threat			-3,01

source: Primary data, processed by researchers,2020

According to the results of the IFAS table analysis it can be seen that the strength factor gets a score of 1.99 and weaknesses -1.90 with a difference in score (+) 0.09. This means that the strength factor is greater than the weakness factor. While the EFAS table shows that the opportunity factor gets a score of 3.19 and a threat of -3.33 with a difference in score (+) 0.01. This means that the opportunities that exist in smart city implementation can be maximized to reduce existing threats. Graphically, the results of the identification of internal and external factors can be explained in the following figure 3 and SWOT diagram.

4.2. Discussion

In order to know the smart city service development strategy in realizing good governance in Kupang City, a SWOT matrix is needed. It can show the strengths, weaknesses, opportunities and threats that exist in Kota Kupang. Based on the SWOT matrix, it can clearly describe the results of the SWOT Smart City analysis which can be explained in Table 5:

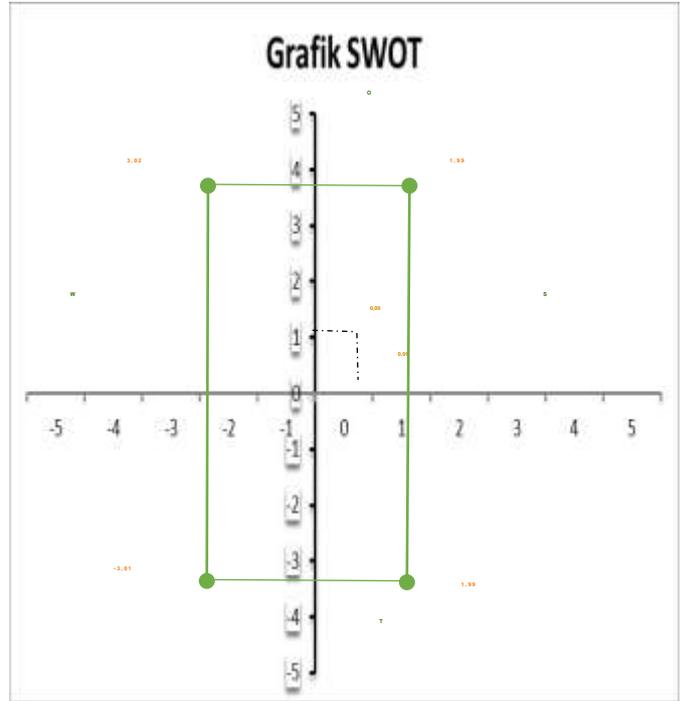


Figure 3 SWOT Graphic

Source: primary data, processed by researchers, 2020

Tabel 5. Smart City SWOT Matrix

IFAS	<p>Strength (S) There is a regulation in the form of a local regulation on Smart City The smart city council, implementation team and smart city forum to assist the implementation and supervision of the smart city implementation People have high interest in smart city Supporting partner institutions in assisting smart city implementation involving all parties in designing the quick wins innovation by taking into account regional strategic problems contained in the RPJMD Kota Kupang is the center of education in NTT which is very fast and responsive in responding to any changes including the smart city program</p>	<p>Weakness (W) Lack of socialization from the government regarding Smart City Lack of government apparatus preparation in implementing Smart City Many people do not understand about Smart City (clueless) Not all public service areas are covered by the Smart City program</p>
EFAS	<p>SO Strategy There is a clear regulation on Smart City, namely PERDA with supporting variables, namely smart city budget allocation in</p>	<p>WO Strategy Lack of socialization from the government regarding Smart City has an impact on the public's</p>
<p>Opportunities (O) Smart City is an implementation of the vision and mission of the Kota Kupang government</p>		

<p>Smart city budget percentage in APBD Availability of third parties/partners that support Smart City Gradual infrastructure development to support Smart City The emergence of various business activities through the implementation of Smart City Increasing the quality of public services</p>	<p>APBD so that the strategy that can be formulated is a gradual synchronization of the budget to all Regional Apparatus Organizations in optimizing the smart city program The public has a high interest in smart cities which can be seen from the supporting variables, namely the emergence of various business activities carried out online by utilizing the smart city program so that the strategy that can be formulated is the formation of formal organizations/institutions that overshadow the community to facilitate coordination and budget assistance as well as training and supervision by Kota Kupang government on community business activities that utilize smart cities.</p>	<p>ignorance of accessing public facilities that are integrated with a smart city, moreover, there are still people who do not understand smart cities (clueless) so that the strategy that can be formulated is collaboration between the government and third parties as partners. government work to help socialize smart city to the lowest level of society. Lack of preparation of government officials in implementing Smart City will also have an impact on public services where not all areas of public service can be reached with the Smart City program so that the strategy formulated is collaboration between the government and vendors and budget allocations in the APBD to prepare and improve the quality of resources. apparatus in implementing smart city.</p>
<p>Threats (T) The level of security of personal and government data is still low Software that is prone to hacking (cybercrime) Monopoly on software and hardware technology by certain parties</p>	<p>ST strategy 1. The involvement of all parties in designing quick wins innovation by taking into account the regional strategic problems contained in the RPJMD is a step forward in implementing smart cities but implementing smart cities with software (software) also has the potential for cybercrime. For this reason, a strategy that can be formulated is a partnership program between the government and third parties that can ensure the security of personal/public and government data so that it is not misused. Kota Kupang is the center of education in NTT which is very fast and responsive in responding to any changes including the smart city program so that the strategy formulation is a partnership between the government and universities in Kota Kupang in the development of smart city software and hardware so that there are no parties certain that attempted to monopolize software and hardware technology.</p>	<p>WT Strategy Not all areas of public service that are covered by the Smart City program with threatening variables are software that is prone to hacking (cybercrime). For this reason, a strategy that can be formulated is to build a collaboration network with third parties who have the capacity to ensure the security of the software and hardware used in the implementation of smart city.</p>

Source: Primary data, processed by researchers, 2020

5. CONCLUSIONS

5.1. Conclusions

In order to know the smart city service development strategy in realizing good governance in Kupang City, a SWOT matrix is needed that can show the strengths, weaknesses, opportunities and threats that exist in Kota Kupang. Based on the results of the SWOT analysis in this study, several things can be concluded as follows:

(1) The concept and implementation of a smart city in

Kota Kupang has received formal legitimacy by stakeholders and has a clear legal umbrella, although not all public service lines in Kota Kupang are currently affordable; (2) The implementation of smart city has changed the paradigm of conventional public services to be more modern, effective and efficient. Meanwhile, the biggest threat is at the security level of personal and government data.

5.2. Strategic Recommendations

From the results of the IFAS and EFAS SWOT matrix, a strategy for the development of a Smart City in Kota Kupang can be recommended as follows:

5.2.1. SO Strategy (Strengths-Opportunities)

Strategies take advantage of the internal strengths of the Smart City program to seize existing opportunities through the following policy formulations: (1) Synchronization of budgets gradually to all Regional Government Organizations of Kota Kupang in optimizing the Smart City program; (2) Establishment of a formal organization/forum that shelters the community to facilitate coordination and budget assistance as well as training and supervision by the Kota Kupang Government on community business activities that utilize Smart City.

5.2.2. WO Strategy (Weaknesses-Opportunities)

Strategies for minimizing various internal weaknesses of Smart City to be able to continue to take advantage of opportunities through the following policy formulations: (1) Collaboration between the Kota Kupang Government and third parties as government partners who help socialize Smart City to the lowest level of society; (2) Collaboration between the government and vendors and additional budget allocations in the Kota Kupang APBD to prepare and improve the quality of apparatus resources in implementing Smart City.

5.2.3. ST Strategy (Strengths-Threats)

Strategies to utilize the internal strengths of Smart City to overcome various threats that come from outside through the following policy formulations: (1) A partnership program between the government and third parties that can ensure the security of personal/public and government data so that it is not misused; (2) Partnership between government and universities in Kota Kupang in the development of Smart City software and hardware so that no particular party tries to monopolize the software and hardware technology

5.2.4. WT Strategy (Weakness-Threats)

Strategies to minimize various internal weaknesses of Smart City and avoid various threats that come from outside through policy formulation, namely building a network of cooperation with third parties who have the capacity to ensure the security of software and hardware used in the implementation of smart city in Kota Kupang.

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