Conference

Service Quality of Satu Data in Banten Province, Indonesia

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Abstract. Public services carried out by the government aim to meet the needs and interests of the community. The Banten Provincial Government has various regulations regarding electronic-based public services. However, there are still many challenges. The purpose of this study was to determine the quality of electronic public services carried out by the Banten Provincial Government. Descriptive methods were used and data were collected through a literature review. The results indicated that the quality of services can be evaluated across four dimensions, namely efficiency, fulfillment, system availability and privacy, but that none of these have been fully met. This can be seen given the variety of domains provided; there are still menus and submenus on the website that do not have content and are not updated; the technology used is still prioritizing using the website and still uses third-party services; and there is a lack of human resources, infrastructure facilities and personnel who have skills in security systems to maintain the confidentiality of public-private data.

Keywords: satu data, public service, electronic-based government system

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1. Introduction

Public service is an activity that intersects with government governance. Law Number 25 of 2009 concerning Public Services Article 1 paragraph 1, states that public services are activities or series of activities in the context of fulfilling service needs by statutory regulations for every citizen and resident of goods, services, and/or services administrative.

In the next paragraph, it is stated that public service providers, hereinafter referred to as Providers, are every state administration institution, corporation, independent institution established by law for public service activities, and other legal entities formed solely for public service activities.

Based on the provisions of the public service law, it is stated that local governments are state administrative institutions that also carry out public service activities as regulated in Law Number 23 of 2014 concerning Regional Government Article 1 Paragraph 3 that Regional Government is the head of the region as an element of

regional government administration that leads the implementation of government affairs which are the authority of the autonomous region.

The government affairs are explained in paragraph 5, namely Government Affairs are government powers which are the authority of the President whose implementation is carried out by state ministries and regional government administrators to protect, serve, empower, and prosper the community. It is also said by Panji Santosa that public service is the provision of services, either by the government, private parties on behalf of the government, or private parties to the community, with or without payment to meet the needs and or interests of the community (1).

Ratminto defines that public services or public services can be defined as all forms of services, both in the form of public goods and public services which in principle are the responsibility and are carried out by government agencies at the center, in the regions and within the Owned Enterprises environment. State or Regional-Owned Enterprises, in the context of efforts to meet the needs of the community as well as in the context of implementing the provisions of laws and regulations (2).

In carrying out government affairs, of course, it is necessary to have a plan that is following the needs and conditions of the community in an area under the regional autonomy framework regulated by Law 23 of 2014.

Governments of the world have paid more attention to intelligent data analysis for scientific decision-making. They also cooperate with enterprises and the public to enhance the vitality and potential of urban development. Because, based on what Kosajan et al., said that the Government information disclosure is the premise and foundation of data disclosure. In the data flow chain, publication is the very first step, followed by disclosure, analysis, integration and utilization, thus data can create greater value (3). Thus, along with technological developments, in providing public services, it is appropriate for local governments to use technology in the administration of their government.

The central government has issued Presidential Regulation (Perpres) Number 39 of 2019 concerning One Indonesian Data. One of the considerations for the issuance of this Presidential Regulation is to realize the integration of planning, implementation, evaluation, and control of development, it needs to be supported by data that is accurate, up-to-date, integrated, accountable, easily accessible, and shared, and managed carefully, integrated and sustainable. It is necessary to improve the governance of the data produced by the government through the implementation of Satu Data Indonesia.

The Presidential Regulation defines Satu Data Indonesia which is a government data management policy to produce data that is accurate, up-to-date, integrated, accountable, and easily accessible and shared between Central Agencies and Regional Agencies through compliance with Data Standards, Metadata, Data Interoperability, and using Reference Codes. and Master Data (Article 1 point 1).

The Presidential Regulation also stipulates that the organizers of the One Indonesian Data at the regional level consist of the organizers of the One Indonesian Data at the provincial level and the organizers of the Satu Data Indonesia at the district/city level (Article 18).

Satu Data is one part of the creation of Big Data because it will be the basis for the use of other technologies, the implementation of big data is also very useful for artificial intelligence technology. Big data is an important thing to use in terms of decision-making in government administration.

The acceleration of big data-based government is strengthened by the issuance of Presidential Regulation Number 95 of 2018 concerning the Electronic-Based Government System (SPBE). According to this regulation, what is meant by an electronic-based government system is the administration of government that utilizes information and communication technology to provide services to SPBE users. Data mining is no longer only sourced from the results of registrations, surveys, and censuses, but can also be sourced from big data.

Likewise, the Banten Provincial Government which consists of 8 (eight) regencies/cities with a population of 11,904,562 people certainly has the same obligation to carry out public services to the people of Banten Province. As an area that connects Sumatra and Java and becomes a buffer zone for the capital, of course, problems and matters related to data are important in carrying out public service efforts. This can be effective if done electronically.

As stated by Zeithaml and Parasuraman et al., stated that there are 4 (four) dimensions in the quality of electronic services, where 4 dimensions are the core quality of electronic services including efficiency, fulfillment, system availability and privacy (4). The Relationship Between Efficiency and Customer Satisfaction Parasuraman et al., in the journal Measurement of E-Service Quality: An Empirical Study On Electronic Railway Ticket Reservation Website Service (5) stated that efficiency is one dimension of service quality. electronics which include the customer's ability to access the website, the ability to search for products and information related to that product, and leave the site in question with minimal effort. The relationship between efficiency and customer satisfaction is that efficiency is one dimension of the quality of electronic services (5).

Then, service quality also has a close relationship with customer satisfaction. Quality provides an impetus to customers to establish a strong relationship with the company. To achieve satisfaction and accuracy in data sources in carrying out public services, it is necessary to have data unity and data standards that can be obtained quickly by providing excellent public services carried out by the Banten Provincial government. In this study, the authors are interested in seeing the readiness of the Banten Provincial government in utilizing big data in local government administration.

Previous research by Budi Maryanto stated that the benefits of Big Data technology have been widely felt in various sectors. Companies engaged in the business sector can take advantage of the valuable information generated by Big Data to optimize the decision-making process and to maximize the achievement of targets so that profits can be achieved. Meanwhile, institutions engaged in public services can use information output from Big Data to maximize the level of service satisfaction to their clients/customers (6).

Meanwhile, Taufiq Effendy W said that big data is used by the government system to accelerate the implementation of government programs. Some of the benefits that can be taken from Big Data in government can be in the form of utilization for government programs, empowering citizens to increase transparency and participation of all stakeholders (7).

Big Data in the government system can create a variety of policies that are faster, more accurate and cheaper in various government institutions. The use of Big Data that uses information with an analytical approach will make the results more structured. The role of Big Data for government or public services is very important because using analytics from Big Data can transform external data into information. Then, translate that information into a policy that will help government performance. Several things that can be achieved by the government by utilizing Big Data technology include: Improving government performance; Increase state revenue and transparency in all government sectors where the impact of using Big Data in the government sector is transparency in the data presented. So, this will be very useful for the public to know more transparently about data related to government and in the end, can realize Open Government which will increase public trust in the government.

2. Methods

The research methods should elaborate on the method utilized in addressing the issues including the method of analysis. In carrying out data collection, researchers determine

the data source and the location of the data source to be studied. In contrast to field research, the location of data collection for library research is much wider and does not even know the boundaries of space.

Literature research has several special characteristics, including; First, this research deals directly with text or numerical data, not with the field or eyewitnesses, in the form of events, people, or other objects. Second, the data is ready-made, meaning that the researcher does not go anywhere, except when dealing directly with sources that are already in the library. Third, the data in the library is generally a secondary data source, in the sense that the researcher obtains data from the second hand, not the original from the first hand in the field. Fourth, the condition of the data in the library is not divided by space and time (8).

So, in this study, the author uses a literature study. Literature study according to Creswell (9) is conducting, searching, and organizing library resources related to the problems to be studied. This literature study was carried out in a study, aiming to enrich the research material. A literature review is a written summary of an article, journal, book, and other documents (9).

3. Results and Discussion

The results of the study indicate that the Banten provincial government has various supporting regulations to utilize Big Data in the administration of local government, namely:

The various regulations listed above are a supporting part in building big data for the regional government of Banten Province.

Big Data systems have a very large volume of data, which usually exceeds ordinary servers in general and this data will continue to grow every day. The amount of data can reach more than 100 TB and is usually stored on an external infrastructure (not self-maintained).

In addition, Big Data also has a variety of data (variety), with very diverse formats and types of data that require a special process to process it. Big Data must also be able to process the data in a very fast time (Velocity) so that the data can be useful not only because of the information it produces but also because of the speed required to process it into usable information.

The fourth characteristic of Big Data is the truth of the data itself (Veracity). Information that is processed from the data in order to become useful and reliable information, we

TABLE 1: Regulations and scopes related to Big Data

No	Regulations	Scopes
1	Banten Province Regional Regulation Number 8 of 2012 concerning Governance of Public Information Disclosure in the Implementation of Regional Government	Improving services to the community, especially in the field of public information, requires guidelines that provide certainty Law
2	Banten Province Regional Regulation Number 6 of 2018 concerning the Implementation of Communication and Informatics	The scope of this Regional Regulation includes: Policies and strategies; Implementation of Communication and Information Technology; Cooperation; Participation of the community and the business world; Guidance and supervision; Award; Funding
3	Banten Governor Regulation Number 19 of 2021 concerning the Implementation of an Electronic-Based Government System	The scope of the regulation on the implementation of SPBE includes: SPBE governance; SPBE Management; Information and communication technology audit; SPBE Operators; SPBE acceleration; and SPBE monitoring and evaluation.
4	Banten Governor Regulation Number 2 of 2020 concerning Guidelines for the Management of One Indonesian Data in Banten Province	Scope of the Guidelines for the Management of One Indonesian Data in the Regions include: One Indonesian Data Operator; and Implementation of One Indonesian Data.
5	Banten Governor Regulation Number 74 of 2017 concerning Provision and Installation of Closed Circuit Television in the Banten Provincial Government	This Governor Regulation aims to: Regulate the provision, installation, operation, and maintenance of CCTV equipment which includes buildings and Provincial Roads in the context of protecting the community, facilitating the handling of disturbances to peace and order; and Integrate the CCTV security system for buildings and Provincial Roads with the Regional Government information system, the Regency/City Government information system, and the regional police unit monitoring system, to optimize the handling of disturbances to peace, public order, and protection for the community.
6	Banten Governor Regulation Number 67 of 2017 concerning the Information and Communication Technology Master Plan of the Banten Provincial Government	RI-TIK is a general guideline in the planning, development, development, utilization, and control of information and communication technology. RI-TIK is further elaborated in standard operating procedures as a technical guideline for Planning, Development, Development, Utilization, and Control of Information and Communication for Regional apparatuses.
7	Banten Governor Regulation Number 7 of 2018 concerning Electronic System Governance in the Banten Provincial Government	The scope of Electronic System Governance in this Local Government includes: ICT infrastructure; Local Government domain and sub-domain names; Application; Data and information; Local Government web portal; Regional Government electronic mail (e-mail); Datacenter and disaster recovery center; Connectivity between information systems (interoperability); Human Resources; Standard operating procedures; and Supervision development.

Source: Edited by the author, 2021

must also look at the source of the data used. Therefore, in Big Data, the truth of the data is one of the things that must be considered.
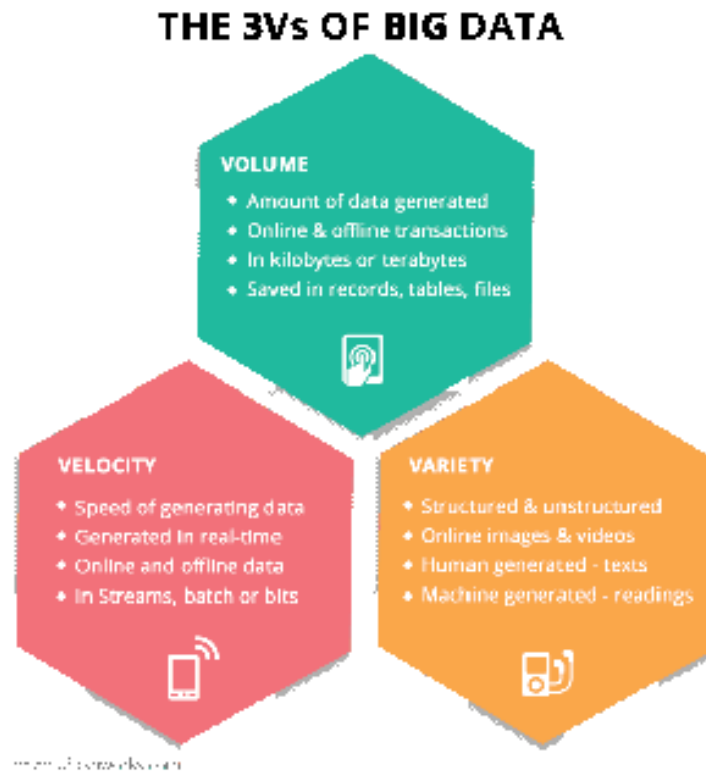

Figure 1: The 3V of Big Data. (*Source: website www.whishworks.com* (10)*, 2021*)

Based on the 3V picture of big data above, the Banten provincial government does not yet have the readiness related to the characteristics and use of big data in the administration of local government. The Banten Provincial Government has regulations regarding the Implementation of an Electronic-Based Government System and Guidelines for the Management of One Indonesian Data in Banten Province. However, in practice, these regulations have not been implemented properly.

Although the Banten provincial government already has the https://satudata.bantenprov.go.id domain, it can be seen in the following picture:

On the website, various menus related to geospatial, statistics, and budget planning have been presented. However, when accessed, there is still a limiting system bureaucracy so that not all users can access it. Likewise, the data presented is still routine data from regional officials, not in the context of public services for the community in Banten Province.
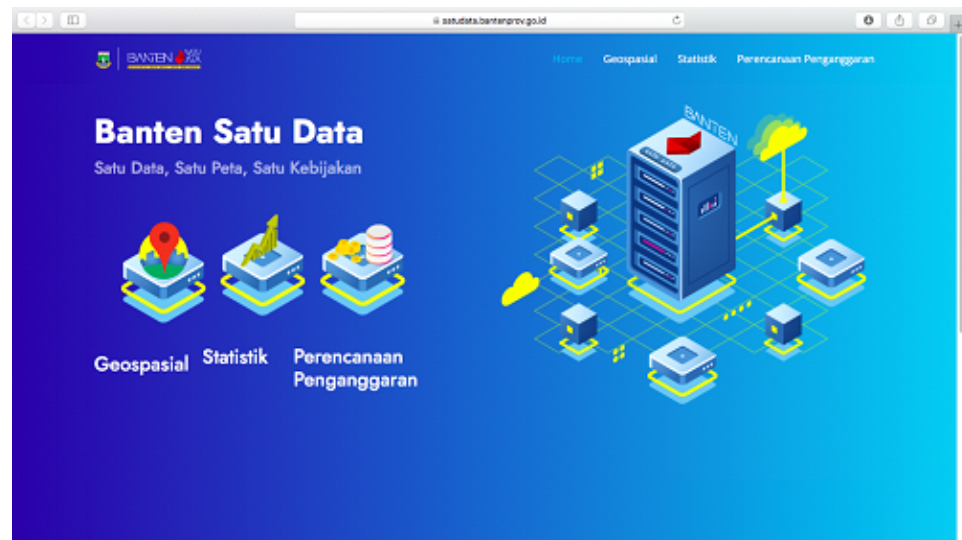
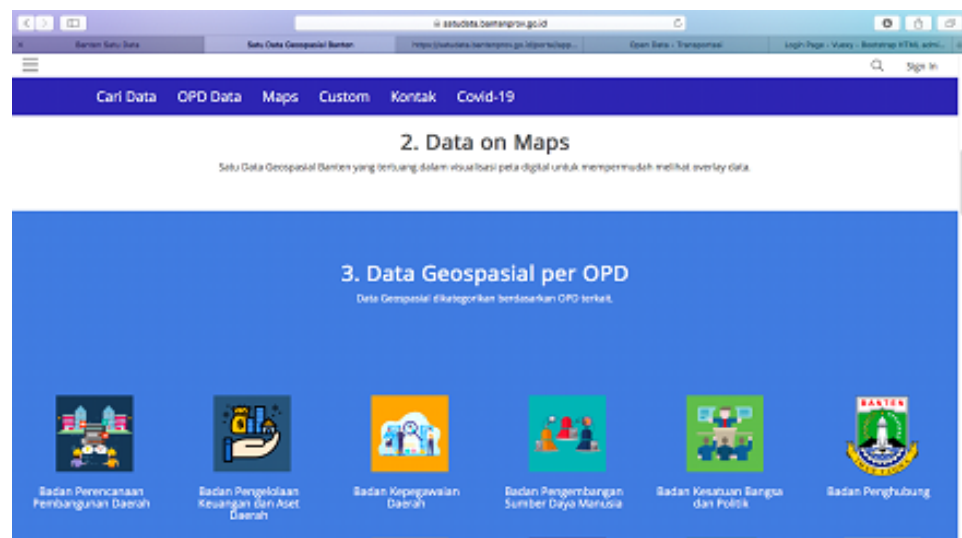**Figure** 2: Banten Satu Data. (*Source: website satudata.bantenprov.go.id, 2021*)

Figure 3: Geospatial Data for Each Regional Apparatus. (*Source: website satudata.bantenprov.go.id, 2021*)

In Figure 3 it can be seen that Satu Data as one of the supporters of the birth of big data cannot be fully accessed because it still has to get permission from the website as can be seen in the image below.

Thus, Satu Data to support the birth of the use of big data in the administration of local government in Banten Province can be said to have not been implemented properly.

The quality of electronic services carried out by the Banten Provincial government in terms of efficiency, to be able to produce by what is desired by using resources optimally, there have been efforts, but in reality, it is still presented in a different domain so that it seems inefficiency in the ease of obtaining public services. It can be seen from the websites www.bantenprov.go.id, and https://satudata.bantenprov.go.id/, and
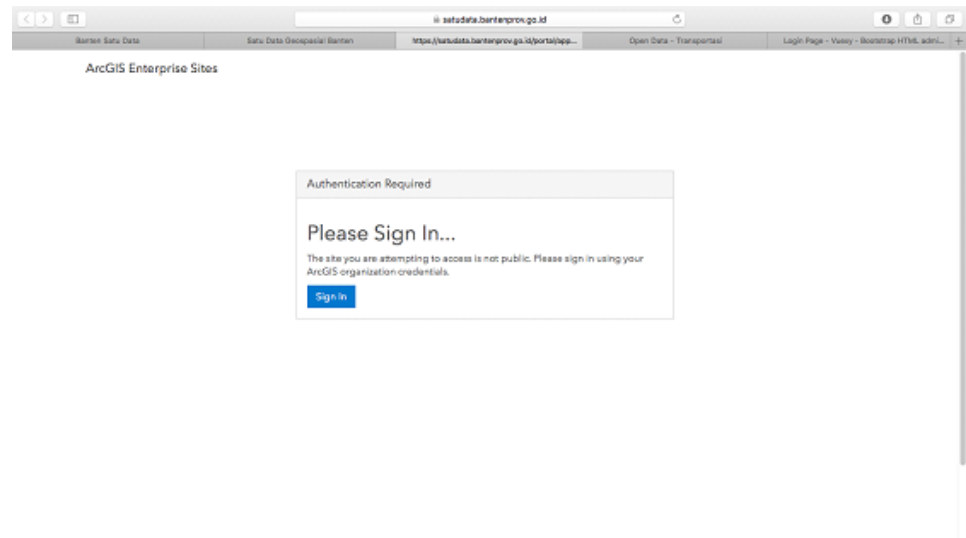
Figure 4: Access Request. (*Source: website satudata.bantenprov.go.id* (11)*, 2021*)

eBanten Jawara eGov on Applications on Google Play, all of which present public service data.

From the fulfillment aspect, the Banten provincial government fulfills what the community needs through certainty of service products or certainty that the data and information needed by the community cannot be said to be fulfilled, because there are still many menus and submenus that do not have content or there is still bureaucratic access before getting service. as Figure 4 above.

In the system availability component built by the Banten Provincial government, the dominant use of the website with the domain www.bantenprov.go.id is while other technologies are still not well integrated, while the regulations for these matters are already very good. However, in its application, work units (regional apparatus) are still sectoral egos so that not all systems can be integrated through technology that makes it easier for the community to receive public services and in one package that provides convenience. One example of a problem that often arises is the New Student Admission (PPDB) where the online PPDB website for the high school level managed by the Banten Provincial Education and Culture Office cannot be accessed by the community or schools and the temporary results monitoring page is not updated (information is not realtime) so that makes it difficult for applicants to make decisions or actions (12).

For the privacy component, the Banten Provincial government must be able to protect the security of public data, considering that the key to public services is the resident identity number (NIK) so caution is needed so that no data leakage can harm the community in the future. In this case, it is necessary to have apparatus or human resources that understand the data security and no apparatus specifically controls the

security system in the Banten Provincial government, so currently, they are still using third-party services.

4. Conclusion

The regulations that have been issued by the Banten Provincial government should be the basis for digitizing public services by utilizing big data. However, from the aspect of compiling the concept of Satu Data, the existing apparatus does not yet have the same understanding. Thus, the problem of unpreparedness of the Banten Provincial government in utilizing big data is broadly caused by the knowledge factor, standardization of data, and the facilities and infrastructure owned. In particular, the data managed by the Department of Communication and Information has not received full support from the Banten Provincial government.

Variety, Velocity, and Veracity themselves have not been able to be carried out properly, especially if they have to be added to the Volume and Value components so that they become 5V. In a short period, the Banten Provincial government must immediately make efforts to adjust and utilize big data, especially in public services in the fields of education, health, population administration, and other mandatory government affairs including elective matters.

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