

Use of eGovernment in Public Services Area

Case Study: Bojonegoro Regency

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Abstract— The objective of e-Government is the availability of access to information by the citizen rather than financial benefits. e-Government system is built based on web technology to provide better public services to the citizen. Public services are services provided by the government to the citizen. Bojonegoro itself has several times received awards in the field of Smart City or e-Government. In this study, we want to know how are the results of using the eGovernment application in the Public Service Area. From the results of the literature study and data collection from 250 public service users, it appears that the applications that are widely used or that attract public interest are national applications that have been around for a long time, such as the Lapor! And online tax service application. Local applications that are being actively socialized actually get the smallest percentage. This study provides recommendations for solutions that can be applied for the implementation of better public services.

Index Terms— eGovernment; Public Services; Smart City; Smart Government; Smart Governance.

I. INTRODUCTION

The rapid development of technology, information and communication (ICT) will open opportunities and challenges to create, access, process, and utilize accurate information. ICT promises efficiency, speed of information delivery, global reach and transparency. Therefore, to realize good governance, one of the efforts is to utilize ICT or better known as Digital Government (e-Government) [1].

e-Government is not changing the way the government communicate with citizen. In the concept of e-Government, people can still contact service posts, talk by telephone to get government services, or send letters. So, e-Government is the use of ICT that can improve relations between government and other parties. e-Government is an effort to develop electronic-based government administration in order to improve the quality of public services effectively and efficiently [2]

Public services are services provided by the government to the community. However, in its implementation there are still discrepancies with what is expected by the community as recipients of public

services. This is evidenced by the number of complaints submitted by the public [3]. Good quality of public services can be achieved if the government and other public institutions as a whole are able to be open to ideas, new ideas and criticism based on the interests of the community. Community responsiveness will increase if the community has access to information about the development process, government services, and involvement in the policy-making process. To strive for good governance, it will be more effective if the government also opens access to information to the public [4] e-Government provides new opportunities to improve the quality of government, by provide new services, increasing efficiency, increasing global information infrastructure and increasing citizen participation. Thus e-Government will improve the quality of public information services as a way to realize good governance [5]

East Java is one of the provinces that is starting to improve towards e-Government. There have been several studies in the East Java area that lead to e-Government to improve the quality of public services, including: making E-Health which is applied in the development of the health service sector of the Surabaya city government to improve public services [6], analysis of the application of E-Government and Good Governance towards E-SAMSAT services in East Java, precisely at the Mojokerto SAMSAT Joint Office in the service operations section [7], analysis of the effectiveness and efficiency of implementing public service transformation through an electronic-based government system in the city of Malang [8], analysis of the application of e-Government in the Regency Sidoarjo in improving the performance of public services [5]. For Bojonegoro Regency, there has been research on open government, namely SIAP LAPOR application management [4] and Open Government Partnership (OGP) implementation [9].

Bojonegoro has several times received awards in the field of Smart City or e-Government. This shows that Bojonegoro has started to move towards e-Government. Therefore, with the existence of several previous studies in the Bojonegoro area, and with the Covid19 pandemic as an accelerator of digital

transformation in the provision of public services [10], [11] it is hoped that this research can produce an in-depth analysis of the condition of e-Government, especially in the scope of public services in Bojonegoro Regency to be taken into consideration for the development of public services in Bojonegoro Regency and increase knowledge and provide information about the factors that affect good governance in terms of public services so that it can be used as a basis for consideration by the Bojonegoro Regency Government in making policies to develop strategic steps to improve public services to achieve a better quality of government.

Problem Statement/Problem Formulation

The ideal of a good e-Government is to produce good services for the community and government employees themselves. As one of the cities that has received several awards in the field of Smart City, Bojonegoro Regency must be good at eGovernment. This research wants to find out about eGovernment applications for public services area in Bojonegoro Regency. Are these applications used properly?

Scope of problem

This research is part of the research roadmap that the research team aspires to, namely the Digital Government and Smart City of Bojonegoro Regency as a whole. However, this research will only focus on public service applications because one of the goals of a smart city or digital government is the availability of good public services.

Research purposes

This study aims to produce an in-depth analysis report on the implementation of e-Government and its impact on public services. From the results of the literature study, interviews on the application of e-Government in Bojonegoro Regency and data collection from public service users, it is expected to produce an analysis document of the condition of e-Government in Bojonegoro Regency and a framework that can help Digital Government in the Bojonegoro Regency Government in a more structured and more efficient manner, especially in terms of public services.

Benefits of research

This research is expected to have benefits both theoretically and practically. From the research results, it is expected to produce a framework or recommendations that are useful for the implementation of e-Government based on public services. For the researchers themselves, it is hoped that this research will produce new knowledge, especially to support Smart Government for Smart City. For users of e-Government public services, it is hoped that the results of this study can be a reference for how to create and implement good public services.

II. LITERATURE REVIEW

A. E-Government

The vast geographical conditions are a big challenge for the government and the people of Indonesia in the era of globalization and information, especially how to connect the scattered areas of Indonesia with a large population through ICT [12]. The use of internet technology is expected to be a vehicle for accelerating the exchange of information, providing service facilities and transaction activities [13]. One of the important roles of e-Government which is very much expected is to start an efficient work culture that is free from non-transparent and corrupt behavior, collusion, and nepotism (KKN) in public services [14].

e-Government leads to three main classifications, namely government-to-business (G2B), government-to-citizen (G2C) and government-to-government (G2G) [15].

1. G2B e-government is about the interaction between government and business (G2B). This helps businesses deal with government more effectively. The most common example is e-procurement services. This service enables a transparent bidding process to all businesses, where previously these businesses needed to constantly contact the government for updates during the bidding process.
2. G2C e-government focuses on the interaction between government and citizens. It is about using e-government to get better public services. For example, G2C e-Government allows citizens to apply for passports online, whereas previously this service could only be done by physically visiting the immigration office and residents had to wait in long queues.
3. G2G e-government enables information sharing among public organizations. It deals with the exchange of information between government agencies and employees at the national, provincial and local levels. The goals of G2G e-government include better coordination between government agencies, standardized procedures, and greater efficiency for government.

Challenges of e-Government Implementation

Factors that can hinder and become challenges for the implementation of e-Government are as follows: [16]

1. There is no clear standardization regarding the implementation of e-Government and how to implement e-Government correctly
2. The information network infrastructure is not evenly distributed to the regions.
3. The lack of good human resources (HR) to manage e-Government.
4. Low leadership commitment to support e-Government
5. Low public literacy to use e-Government

6. Organizational culture that is less supportive of change and low culture of sharing information, especially between government institutions
7. Some new areas understand that the e-Government is only to building a website from manual to digital.

In addition, the application of e-government is a form of implementing the use of information technology for government services to the public. That is how the government provides information to stakeholders through a web portal. Differences in understanding, perspective and application of e-government have led to distortions and deviations from the purpose of making e-government itself. The weak use of e-government in a bureaucratic environment that is interrelated with the still limited application in the business world has caused the slow implementation of e-government programs [13].

B. Related Researches

Many researches on e-Government have been carried out, including:

1. Research on the existence of document tracking technology [17], [18] This research was conducted to simplify how to manage, track, and handle electronic documents in government agencies, which can also support frequent modifications of business processes. This study proposes to integrate document tracking technology into e-Government business processes to improve the efficiency and effectiveness of e-Government applications in Indonesia.
2. Development of an e-Government software requirements specification model [19], this research was conducted to produce a software requirements specification model for e-Government in order to obtain a good e-Government SKPL document.
3. Development of an e-Government software quality model [20], this research was conducted to produce a model of e-Government software quality in order to find out how good the software quality is.
4. e-Government Maturity Model [21], [22], to achieve this goal, the researcher considers five determinants, namely: trust and awareness; simplified services; use of the most advanced technology; detailed processes and agile accessibility.
5. The Garuda Smart City Framework [23], this research, uses the tools of the Garuda Smart City Framework 2 (GSCF 2) whose indicators include digital government as part of the measurement in addition to sustainable indicators such as economic, social and environmental as well as enabler indicators such as technology, infrastructure, people and government. Through this measurement, it is hoped that cities will know their position and

- are expected to understand how to move towards a smarter and more sustainable city.
6. Development of an assessment model to assess e-Government software [24], this study develops an e-Government software asset valuation model for recommendations for its maintenance at the Regional Personnel Agency (BKD) Bandung.
 7. Measuring the quality of e-Government services with eGovQual [25], [26], This study uses the e-GovQual model by adding one dimension, the purpose of this study is to obtain user ratings of the quality of public service applications. that there are 24 attributes from five dimensions: trust reliability, efficiency, user satisfaction and community support.
 8. Challenges and barriers to eGovernment in Indonesia [15], this study analyzes the challenges for the development of e-Government in Indonesia.
 9. E-Government resource management with Big Data [27], the purpose of this study is to explore how to manage the resource from eGovernment using big data.
 10. The development of community-oriented public services [28] to improve the efficiency and effectiveness of government services this research focused on the transition from analog to (parallel) digital services and digital transformation to reengineer and redesign government services from scratch to meet the needs users who continue to change.

III. RESEARCH METHODOLOGY

A. Data Source

The data used in this study is secondary data. The data collection process was carried out through a search of the results of previous research, as well as data from the Bojonegoro Regency Government related to e-Government public services. Secondary data collected in the form of 250 questionnaires from the public about the assessment for the quality of public e-government services in Bojonegoro Regency.

The lead researcher is responsible for data collection, data analysis, literature study, analysis of the Bojonegoro eGovernment condition and the obstacles found.

Research members are tasked with collecting data from the community, analyzing existing public service systems/applications, and analyzing infrastructure that supports the implementation of Digital Government in Bojonegoro.

B. Methodology

Phase I: Understanding Existing Condition
 Phase Ib: Identify Failure and Success Factors
 Phase II: Pilot Study for Solutions and Development
 Phase III: Further Action

IV. RESULT AND DISCUSSION

A. Phase 1 : Understanding Existing Condition

In order to understanding existing condition, this research have to collect the data first. The data collection of this paper was performed questionnaire or interview to the stakeholders and based on a literature review. But first we focused on the systematic literature review. A systematic literature review is defined through the usage of a comprehensive search that scans the relevant body of literature with clearly stated and comprehensible search choices and selection criteria [29].

Adoption from [30], the systematic literature review consisted of open searches using the following words: "smart cities" & "governance", "smart governance", "e-Government" and "smart government" by means of browsing through titles, author supplied keywords and abstracts. Research data is taken from several sources: Link Springer, IEEE Xplore, Research Gate, Science Direct, Google Scholar, ACM and others.

There are around 40 journals articles for systematic literature review about smart city, e-Government, smart governance, including how it is applied in Indonesia and Bojonegoro.

There are 17 priority programs of the Bojonegoro Regency Government:

1. Repair of roads, bridges and infrastructure and PJU (public street lighting);
2. KPM (Independent Farmer Card) Plus;
3. Supporting the regulation of Madrasah Diniyah through the initiation of the Regional Regulation on Madin;
4. The best education services for elementary to high school schools;
5. New job opportunities;
6. Additional incentives for GTT and PTT;
7. ALADIN Program (Repair of roofs, floors and walls of underprivileged houses);
8. MSME capital for BUMDES based on tourism and Agribis;
9. A friendly environment for women, children, persons with disabilities as well as the poor and child care parks;
10. Health includes 24-hour Puskesmas services, strengthening Polindes, additional nutrition for pregnant and lactating women;
11. Revise Perbup No. 35 of 2015 to improve the welfare of the Village Head and Village apparatus;
12. RT/RW Remuneration;
13. Compensation for grief;
14. Bojonegoro Green and Smart City include green open spaces, child-friendly open houses, as well as access to information and the internet;
15. Ease of licensing and One-Stop Investment;
16. Annual Bojonegoro Cultural Festival;

17. Arrangement of traditional markets towards modern markets

The existence of 17 excellent programs is supported by the application provided by the Government of Bojonegoro Regency. One of the targets of the Ministry of Communication and Informatics as a pilot project for the eGovernment of the Bojonegoro Regency Government is to find out how to use the application and how deep the socialization of the 17 flagship programs reaches the community.

1. LAPOR!!
2. Online Single Submission (OSS)
3. Online Licensing Service (SIPPADU Application)
4. Online Tax Service e-Tax Application
5. Online MSME Services
6. IT Helpdesk Service
7. Assistance Submission Service (SiBantu Application)
8. Grief Compensation Service (SANDUK Application)

The current study has completed taking data in the form of a questionnaire on the Use of Public Service Applications by the Bojonegoro Regency Government. Questionnaires were distributed to 250 respondents with various backgrounds.

a) Respondent Gender:

Based on Figure 1, we know that 53% respondents are women and 47% respondents are men.

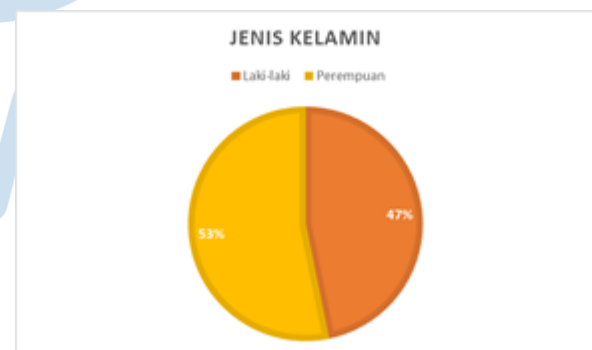


Fig. 1. Respondent Gender

b) Respondent Age:

As seen in Figure 2, most of respondents are in the productive ages. Most of them are 18-25 years old and 26-40 years old.

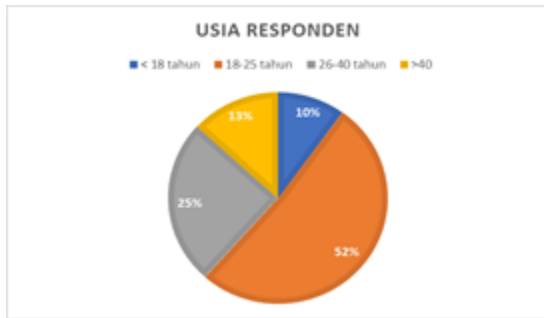


Fig. 2. Respondent Age



Fig. 5. Respondent Website Usage

c) *Respondent Education Level:*

The education level is good enough. As seen in Figure 3, most of them have finished high school degree.



Fig. 3. Respondent Education Level

d) *Respondent Occupation:*

Respondents came from many field of work. It makes diversity about occupation.



Fig. 4. Respondent Occupation

f) *Respondent Access to the Government Website:*



Fig. 6. Respondent Access to the Government Website

From the results of the questionnaire, the following are the results of the public's understanding of the application of these public services:

1. Public service applications that are known to the public:



Fig. 7. Public service applications that are known to the public

e) *Respondent Website Usage:*

2. Public service applications that have been used by the public:



Fig. 8. Public service applications that have been used by the public

- Public service applications that may later be used:



Fig. 9. Public service applications that may later be used

From the results of the questionnaire, it can be seen that the applications that are widely used or that attract people's interest to use them are national applications that have been around for a long time, such as the Laporan! And an online tax service application. Local applications that are being actively socialized (SANDUK Applications) actually get the smallest percentage.

B. Phase Ib: Identify Failure and Success Factors

Failure Factors:

- Lack of human resources (sufficient to manage e Government).
- Network infrastructure and information dissemination that has not been evenly distributed to the regions.
- Low public literacy to use e-Government.
- Lack of information about e-Government applications or website in public services area.

Success Factors:

- Leadership in terms of its commitment to support e-Government in Bojonegoro Regency is already good.

C. Phase II: Pilot Study for Solutions and Development

- Discussion of Questionnaire Results.
From 250 questionnaire data, it turns out that the results obtained are not satisfactory.

- Therefore, further discussion is needed to convey the results of this questionnaire to the Department of Information and Communication Technology of Bojonegoro Regency so that they can take the next step.
- HR Workshop and Training
Train human resources managing public service applications so that they can use the application properly
 - Application training and socialization
Conduct training and socialization of public service applications to the community
 - Collaboration Initiation
 - Collaborate with students and students to assist the socialization process in each village so that the reach of information can be wider.

D. Phase III: Further Action

Most of the obstacles faced are bureaucratic constraints to the Bojonegoro Regency Government. The process of taking care of permits and correspondence is quite time-consuming. It is hoped that for future research this can be reduced so that the research carried out can run better.

V. CONCLUSIONS

There is still a lot of work to be done in the Bojonegoro Regency e-government, especially in terms of public services. This research is not intended to vilify or bring down any party. This research is purely done to provide solutions so that e-government in Bojonegoro Regency can be even better.

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